AMERICAN LINE
RED STAR LINE
INTERNATIONAL NAVIGATION COMPANY

FACTS FOR TRAVELERS

United States Lines Company

The American Line

New York

== to ==

Southampton

★

28905-cc

The Red Star Line

New York

== to ==

Antwerp

INTERNATIONAL NAVIGATION COMPANY,

6 BOWLING GREEN, NEW YORK.

307 WALNUT STREET, PHILADELPHIA.

32 SOUTH CLARK ST., CHICAGO.

609 MARKET STREET, Grand Hotel Building, SAN FRANCISCO.

RICHARDSON, SPENCE & CO., Managing Agents American Line,

3 Cockspur Street, S. W. - -
115 & 116 Leadenhall St., E. C. } - - LONDON.

22 Water Street, - - - - - LIVERPOOL.

Canute Road, - - - SOUTHAMPTON.

VON DER BECKE & MARSILY, Gen'l European Agents, Red Star Line, ANTWERP.

American Line—Red Star Line

THE steamers of the American and Red Star Lines ply between New York and Southampton, New York and Antwerp, Philadelphia and Liverpool, and Philadelphia and Antwerp. These services are maintained by 20 steamers, and the Company's fleet is about to be augmented by the addition of the St Louis and the St Paul, now nearing completion at the yards of The William Cramp & Son's Ship and Engine Building Company, Philadelphia.

FLEET:

	Tonnage.	*Length, Feet.*	*Breadth, Feet.*		*Tonnage.*	*Length, Feet.*	*Breadth, Feet.*
ST LOUIS, (new) .	11,629	554	63	ST PAUL, (new) .	11,600	554	63
NEW YORK, . . .	10,803	560	63¼	PARIS, ...	10,795	560	63¼
KENSINGTON, . .	8,669	494	57	SOUTHWARK, .	8,607	494	57
FRIESLAND, . .	7,116	455	51	WESTERNLAND,	5,736	455	47
BERLIN, ...	5,526	510	44	NOORDLAND, . .	5,212	419	47
CHESTER, . . .	4,770	461	44	WAESLAND, . .	4,752	443	43
PENNLAND, . . .	3,760	374	42	BELGENLAND, .	3,692	423	40
RHYNLAND, . . .	3,689	423	40	OHIO, ...	3,392	355	43
PENNSYLVANIA, .	3,166	355	43	ILLINOIS, . . .	3,163	355	43
INDIANA, . . .	3,158	355	43	NEDERLAND, . .	2,839	338	39
SWITZERLAND, .	2,819	338	39	CONEMAUGH, .	2,328	310	37

These steamers are magnificent specimens of naval architecture, and were specially constructed for the Atlantic service. They are unexcelled in comfort and safety by any steamers afloat. Their construction is in excess of the most rigid requirements, and they are universally fully supplied with life boats and rafts.

The accommodation for passengers is unsurpassed, the New York steamers carrying first cabin, second cabin and steerage passengers, while the passenger accommodation of the Philadelphia steamers is entirely given up to cabin and steerage.

TWIN S. S. ST LOUIS AND ST PAUL.

THE TRIUMPHS OF THE AMERICAN SHIPBUILDER.

THE evolution of any useful thing in the mechanical arts can be made interesting to the reader through a description of the processes by which it is converted from a crude state to a marketable perfection, but probably nothing in the world involves so many appeals to the imagination as the evolution of a great modern ship.

When these pages reach the reader there will be afloat, and in commission, two of the largest transatlantic mail steamers in the world, the St Paul and the St Louis, both created by American genius and American capital, both alike in all particulars, both flying the American flag, and both to be regarded as colossal monuments of the renaissance from the inaction which has been forced upon the American shipbuilder by various hostile circumstances.

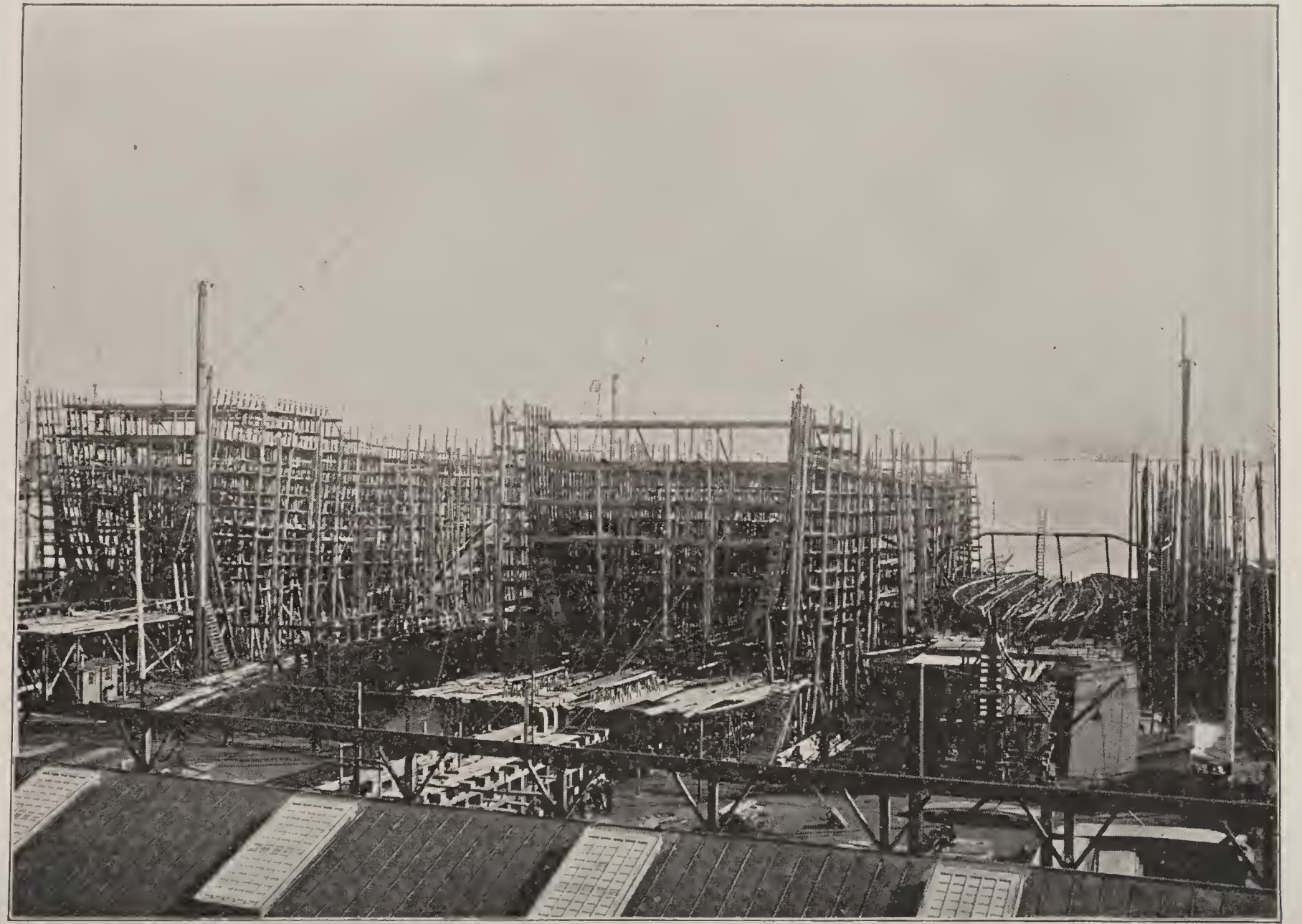
These are the two ships which were promised when the Paris and the New York were admitted to an American registry a little more than two years ago, and they are the forerunners of the acquisition by the American Line of such a fleet as never before existed on the Atlantic under our flag.

When under the most impressive circumstances President Harrison let the flag loose to the wind on the New York, they existed simply as a practicable idea removed from the earliest conception merely by the provision of ample capital and a confident belief in the capacity of the American shipbuilder to produce a type of modern transatlantic liner that should stand the closest and most exacting comparison with the productions of Belfast and the Clyde.

There was ample justification in the previous achievements of our shipbuilders for this confidence. The American clippers have never been surpassed in beauty and speed, and features have been introduced on the coastwise steamers built on the Delaware which are so admirable that their omission from the English-built vessels has been a matter of surprise.

Still, an eleven thousand ton ship that should equal or exceed the speed and seagoing qualities of the Paris and New York, and that should compete with those luxurious vessels in their passenger accommodations, was an enterprise calling for much courage, and in its fulfilment for the demonstration of latent capacities which had not yet been fully tested.

A formidable gulf had to be spanned between the buoyant hope that animated the flag raising on the New York and the triumphant completion of the two new ships. But in hardly more than two years the distance between a bold conception and its realization has been traversed, and the St Paul and the St Louis are accomplished facts and enduring witnesses to



EARLY STAGES IN BUILDING THE ST LOUIS AND ST PAUL.

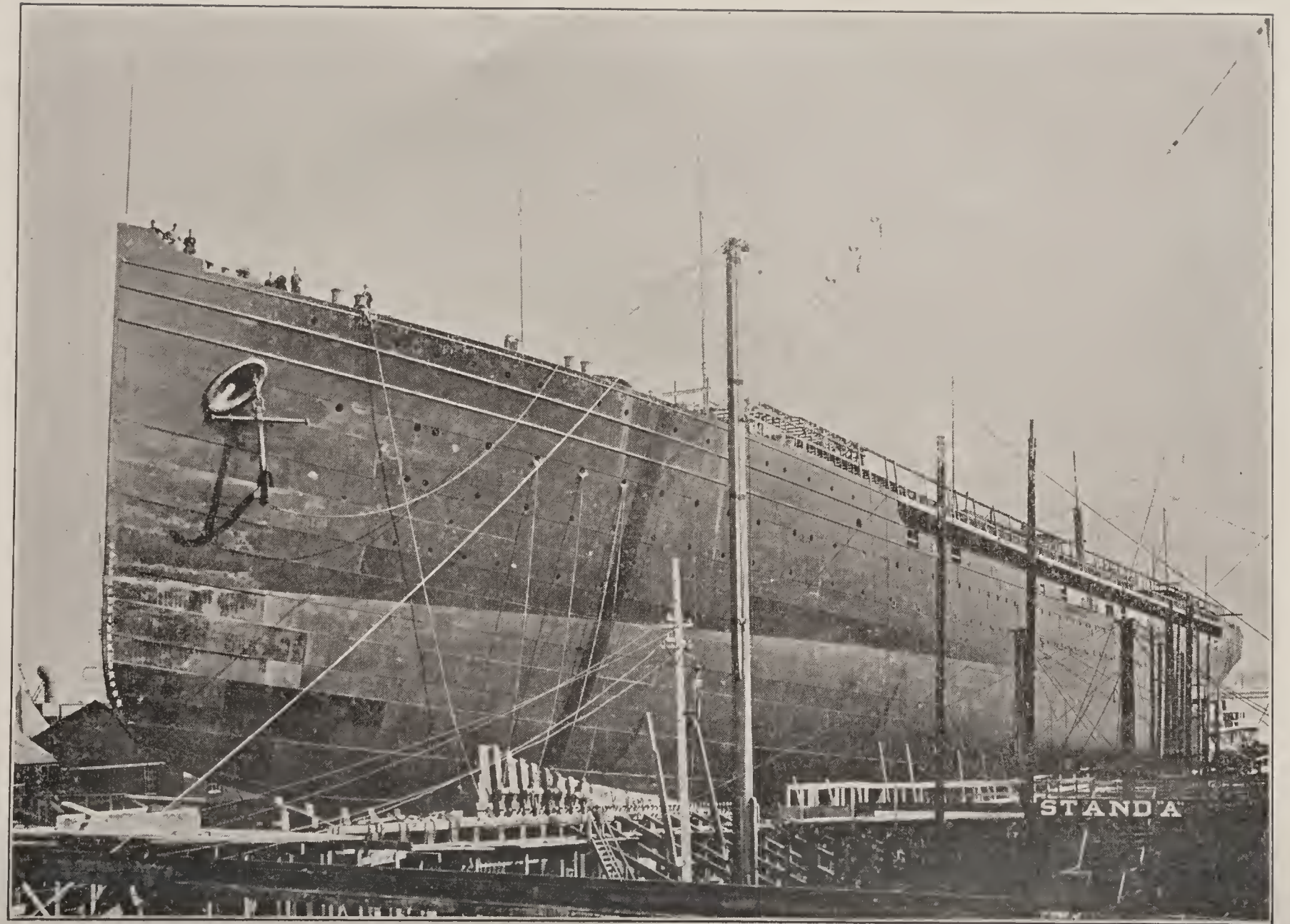
the sanity of the faith which inspired their construction, and which exercising itself in the expenditure of enormous capital has reached its apotheosis by calling into co-ordination with it many of the most important representations of the mechanical genius of the nation.

The two new ships are even larger than the Paris and the New York, and the reader cannot fail to be interested if he pauses to consider what such dimensions are as compared with other things. Take the magnificent Victoria Tower, the loftiest pinnacle on the English Houses of Parliament; the St Paul or the St Louis, if placed in a vertical position, would be, from stem to stern, 214 feet higher than this tower; or again, take the dome of St. Paul's Cathedral, and either ship would overtop it by 189 feet; or again, compare the length of this cathedral with that of the ships, and it is found that they are 54 feet longer than it is. Coming nearer home, we may look at St. Patrick's Cathedral, New York, and admire its noble proportions, only to find by comparison that while its length is 306 feet the length of the new ships is 554 feet. They are 63 feet in breadth; 42 in depth; subdivided into 17 water-tight compartments on the same improved plan as those of the Paris and the New York, and each has a displacement of 16,000 tons when drawing 26 feet of water. Before boilers or engines were put on board over 6000 tons of steel had been used in the construction of the hull of each ship.

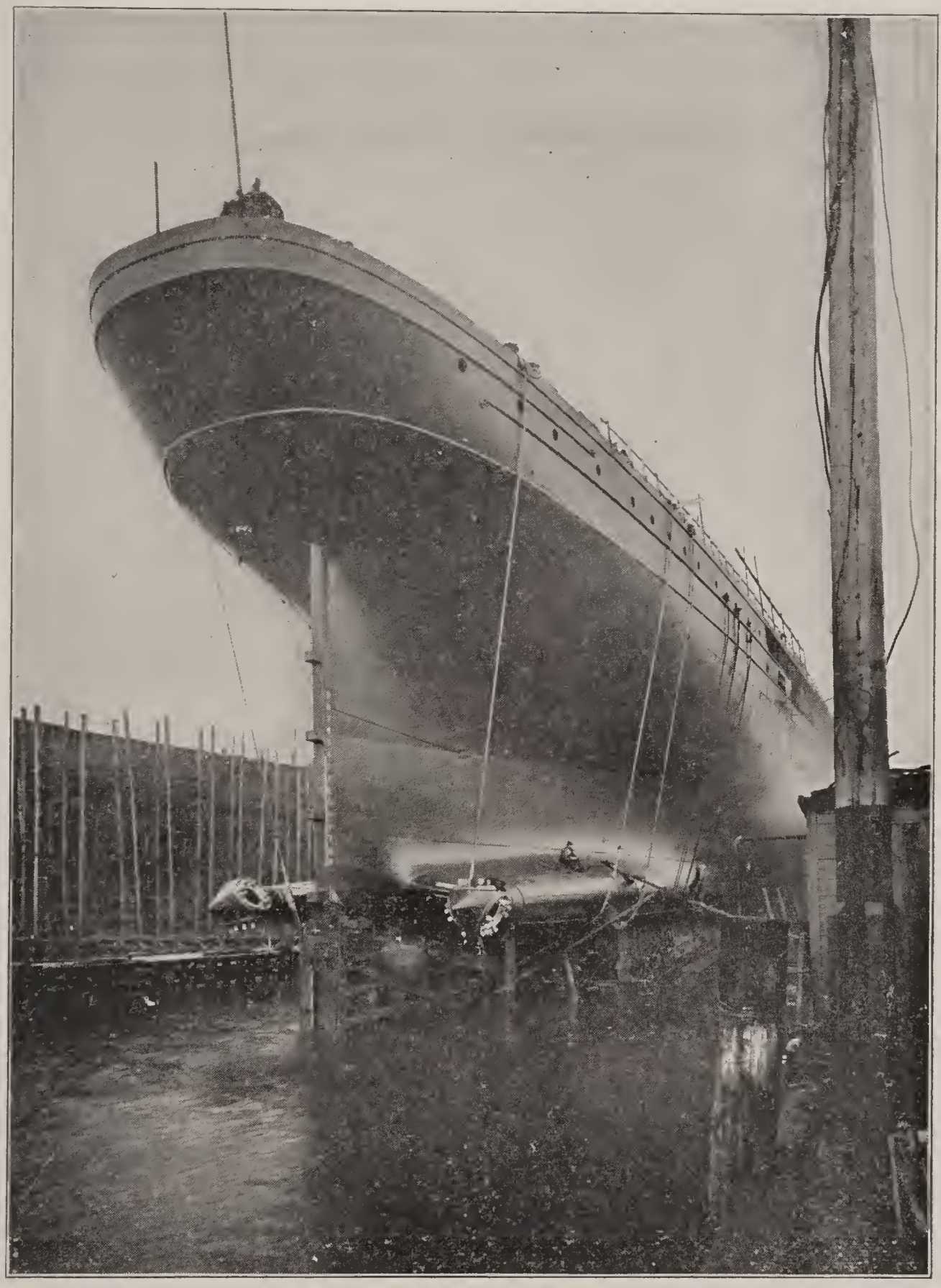
In presence of the substantial evidence of material expended it is unfair to lose sight of the infinitely greater value represented in the mental resource which has achieved an ultimate value for this material. What are 6000 tons of steel without the application to them of the intellectual ingenuity of a great age of invention?

And here begins the most fascinating part of the building of such ships. The highest edifice in the world is, in its inception, a matter of the architect's plans, and there is nothing between his drawings on paper and the contractor's brick, iron and stone. Not so with the designer of the great ship. He has to make drawings, too, but they do not suffice any more than a drawing suffices for the production of an elaborate scenic effect on the modern stage. On a small model stage, the scene painter before beginning his work on the full scale, puts together in little every detail, so that, as in a child's theater, the baron's castle, the hut of the charcoal burner, the recesses of the forest, or the banquetting hall, ceases to be what it was on the flat cardboard, and acquires several dimensions. The branches of the trees are perforated; the roof hangs flat over the walls of the hovel; the buttresses of the castle stand out in the wings—all in miniature, but still replicas on a reduced scale of what the actual scene will be.

The naval architect begins with paper also; but his plans, elaborate as



BOW VIEW OF ST LOUIS.



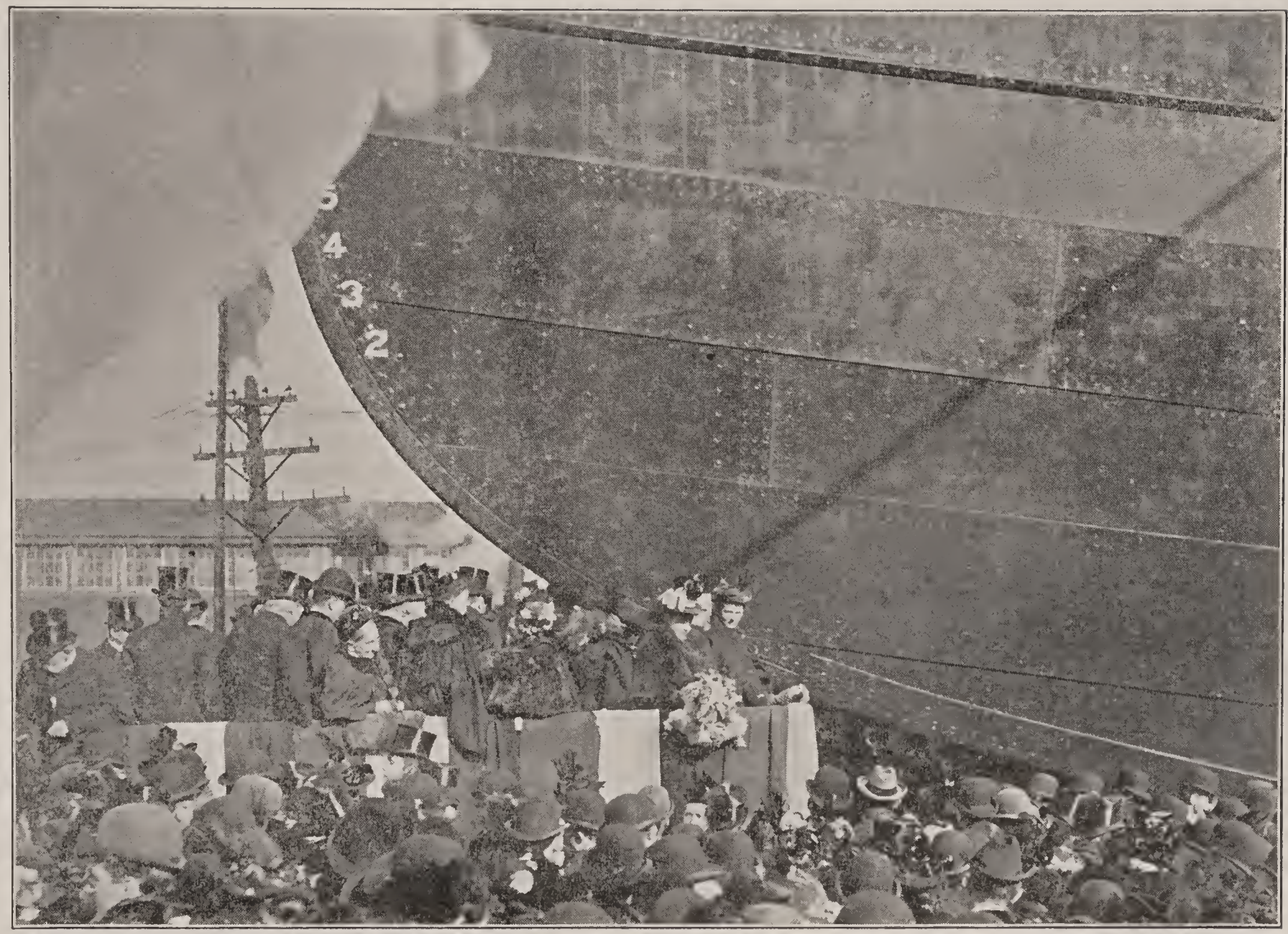
STERN VIEW OF ST LOUIS, SHOWING SHAFT CASINGS.

they may be, involving the most intricate of calculations, and networks of lines finer and more complex than those of all the webs that might be found in a rose garden in June, have to be verified in solid material, not on a reduced scale in this instance, but on the actual measurements of a ship longer than St. Paul's Cathedral.

Come up to the mould loft of such a shipyard as that in which our two new ships have been built, and you shall see what we mean. At the beginning, as it has been intimated, every part of the vessel has been drawn on paper in three separate sets of plans: one set showing all the lines of length and heighth from stem to stern; the second set showing the lines of length and breadth as they will appear from aloft; and the third set called "the body plan," which gives the lines of breadth and heighth. Taken together they are called the "construction drawings," and they are so elaborate and detailed that one might well believe that the ship could be built from them alone, as a "sky-scraper" is built from the architect's drawings. The shipbuilder can see fairly well from them what the vessel will look like, and what her capacity will be, but he does not work directly from them. They are carried up into the mould loft, the floor of which is like an enormous blackboard—a blackboard as long, or longer, than the New York Normal College—and thereon they are redrawn at full size, every plate, rib and girder being represented just as it will be. There is a headache in the mere contemplation of such a web of lines, but there is not one that is not checked and verified, the work being known technically as "fairing the ship." When all discrepancies between the scaled drawings and those on the blackboard have been corrected, the latter are again reproduced on what is called a "scrive board," and in this the lines hitherto drawn with chalk are grooved for permanence in wood.

It is with the "scrive board" before him that the shipbuilder proceeds with his work, and it is never out of his eye until the 6,000 tons of steel have been converted into the vast fabric of the hull.

Look at the accompanying illustrations and observe the variety of graceful curves from bow to stern into which the material has been worked in fulfilment of the designer's plans. Every moment the "scrive board" has been in requisition for reference and verification. First, the ribs have been bent—created out of long, pliable bars of steel issuing out of the furnaces at a white heat. Working on a metal floor perforated with thousands of holes, the mechanics, armed with pincers and tongs, seize the hot, straight bars, and guided by the line on the "scrive board," and by wooden patterns, they insert pegs or "dogs" in the holes of the floor to reproduce the needed curvature of the ribs, afterwards hammering the metal into the exact



JUST BEFORE THE LAUNCH.

shape required. As with the ribs, so also with the rib-bands that hold the ribs together, and with the multitudinous bones, as we may call them, of the ship's skeleton. Infinite labor and infinite care are involved at every point, and though the thousands of workmen employed in such a yard as that of the Cramps may be pushing her forward with all the speed compatible with thoroughness, many months must elapse before she is "in frame."

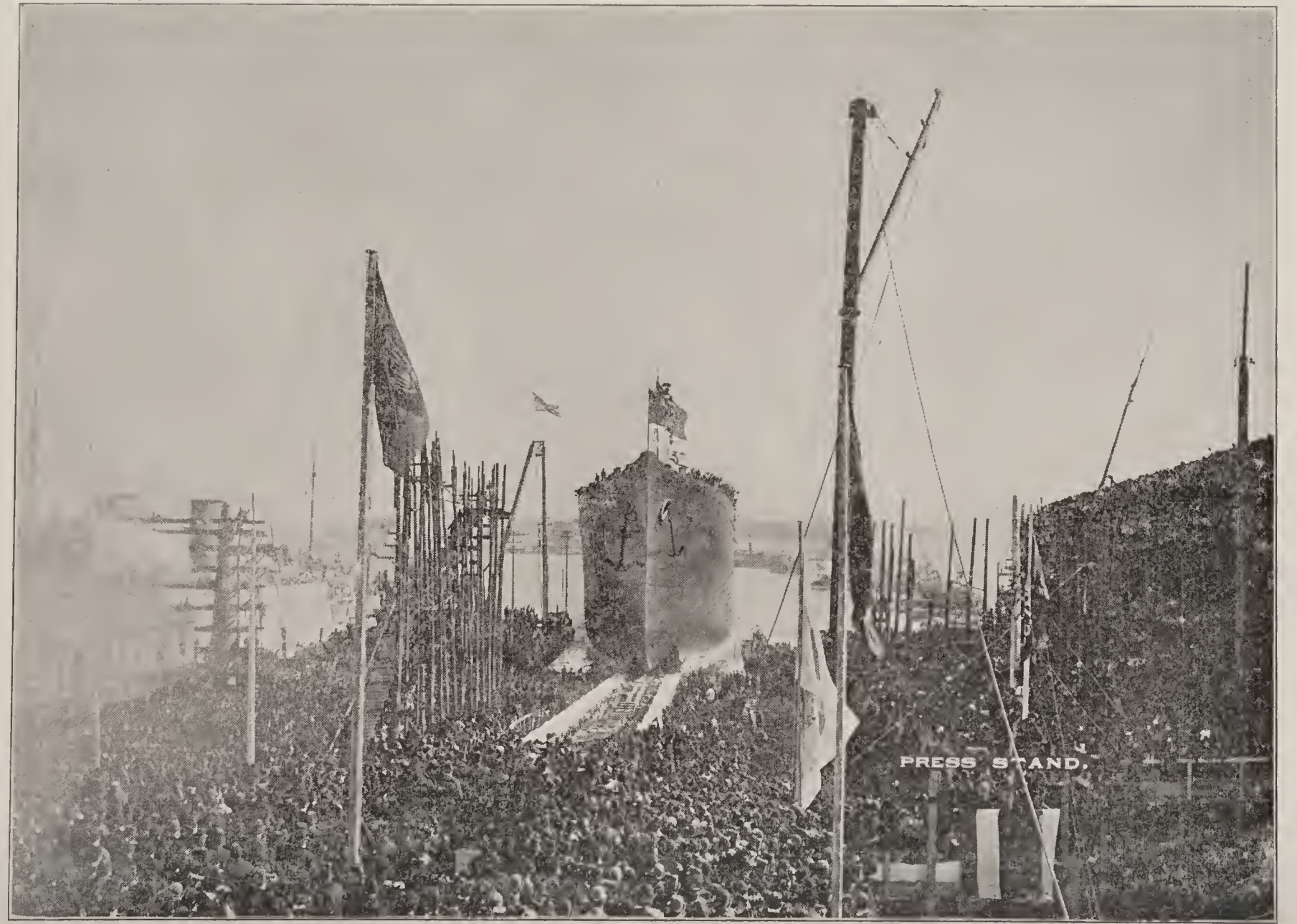
"In frame" she is like a huge skeleton, or an equally large wicker basket. The lines that have been ink on paper, chalk in the mould loft, grooved in the "scrive board" and chalk again on the iron floor, are now embodied in this skeleton. The next step, if we continue the anatomical analogy, is the clothing of the ribs with flesh as represented in the steel plates. As they reach the yard the plates are square and flat, but they are passed through rollers of various kinds, from which they issue in any shape desired—hollowed like a spoon or a teacup, curved lengthwise, or breadthwise, or diagonally. A steam or hydraulic plane smoothes them down as though they were deal boards; another machine trims the edges as a woman cuts silk with a pair of scissors. Then, suspended by iron chains, they are shoved into the jaws of a punching machine, which bites out, ten at a time, the holes for the rivets by which they are to be fastened to the ribs.

As they are hoisted up to the riveters, each plate fits the exact place designed for it, and takes its part in the softly swelling lines of the ship. They are put on in rows, or as rows are technically called in this connection, "strakes" which are lettered alphabetically, "A" being the row rivetted to the keel. The upper edge of "A" overlaps the lower edge of "B," and the lower edge of "C" overlaps the upper edge of "B," and thus while one row of plates, like "B," has both edges hidden, the row above it has both edges exposed, the object being to minimize resistance to the progress of the ship.

In a wooden vessel all the lines of contact between plank and plank are filled by oakum and tar. An iron or steel ship, also, is "caulked," but in her case the process is different. The sharp edges of the plates are merely turned in with a chisel, and they meet so closely that no filling is necessary to exclude water. First, held in place by bolts and nuts, the plates are finally secured by the rivets, the holes for which have previously been countersunk by machinery, so that there are no protuberances. The rivets have double heads; millions of them are used, and every one is examined and checked before the work is accepted as being satisfactory.

At last the hull is closed in; decks and bulkheads have been built, and the ship is ready for launching. The conversion of the 6000 tons of steel into this shapely and buoyant form is complete, and the imagination of the

ST LOUIS ENTERING THE WATER.



BOW LEAVING THE LAUNCHING WAYS.

looker-on must be quick, indeed, if it can find anything more impressive than the transformation of the metal as delivered to the builder into the marvelous combination of strength and grace represented in the new ships. One thinks of the sculptor working with his soft clay, and remembers, with the evidence before him, that with no more pliable or ductile material than bars and plates of steel the shipbuilder has produced contours as delicate as those of any statuary.

Though afloat and disencumbered from the platforms, tressels and props which have surrounded her while on the ways, she has still to be provided with boilers and engines—still to be upholstered and furnished—still to give employment for a good part of another year to between four and five thousand American workmen—painters, plumbers, upholsterers, electricians, cabinet makers and decorators. Engines and boilers have been in progress simultaneously with the hull, however, and are ready to be lifted into the ship as soon as she is ready for them. In each ship there are ten boilers, containing over thirteen miles of tubing—think of that! six double-ended and four single-ended. The engines of propulsion are of a newer and more effective type than those of any other transatlantic liner. There are two of them in each ship, of the quadruple expansion type, each working through six cylinders at a pressure of 200 pounds, and it is calculated that they will develop twenty thousand horse-power.

Does the reader realize what twenty thousand horse power is? A distinguished Englishman recently compared a vessel propelled by such engines with an ancient galley propelled by oars. "Take her length as being some six hundred feet and assume that place be found for as many as four hundred oars on each side, each oar worked by three men, or two thousand four hundred men in all; and allow that six men under these conditions could develop work equal to one horse power; we should have four hundred horse power as the result of the work of the two thousand four hundred men. Double the number of men, and we should have eight hundred horse power. with four thousand, eight hundred men at work, and at least the same number in reserve, if the journey is to be carried on continuously." Contrast the puny result thus obtained with the power of the engines of the St Louis and St Paul, either of which are capable of developing on the above mode of calculating a power equal to that of one hundred and seventeen thousand men, and that is without allowing for constant relays. And it must be remembered that while these engines are the prime motors of the ship, she is equipped with over fifty smaller ones for ventilation, refrigerating, hoisting and the almost innumerable functions involved in operating her.

At length she is complete and ready for commission, with a crew of at

ST LOUIS IN THE RIVER.

least four hundred men. We may now survey her again, and before doing so it will be well to consider what requirements she must fulfil in order to be accounted a success.

First of all there is safety, and in that respect she could not possibly surpass the Paris and the New York, which have structural improvements in them which make them practically unsinkable. These, however, are repeated in her, and they include every device that inventive genius has found to be of any practical value. She is a twin screw ship, and is propelled not by one screw and one engine alone, but by two screws and two engines, either of which might be disabled without impairing her efficiency, except by temporarily reducing her speed. They are completely separated by longitudinal bulkheads, which, in addition to the ordinary transverse bulkheads, subdivide the ship into seventeen water-tight compartments. The life-boats are out of sight from the promenade deck, but are carried on the awning deck, where they can be got at and launched much more easily than elsewhere, and there are no fewer than thirty-four of them. In summing up on the score of safety, then, there need be no hesitation in affirming that human prescience could go no further than it has in our new ocean greyhounds.

The second consideration is the provision for the comfort of the passengers, and in that respect the citizens of the most luxurious nation on earth are not likely to be disappointed with what has been done for them on the vessels flying their own flag. "Give me the luxuries of life and I will dispense with the necessaries," said James Russell Lowell. In the St Louis and the St Paul the luxuries have been reckoned as being the necessaries, and though other ships have been described as floating hotels, the expression as applied to them is up to date in its significance, for they duplicate afloat the resources of their most modern contemporaries ashore. Imagine a promenade, cleaner than the cleanest of Parisian boulevards, twice five hundred and fifty-four feet long, as a place of rest or exercise, provided with comfortable extension chairs and sheltered from sun and rain by the awning deck. Such is the promenade deck of the new ships, and the point from which we will start our survey of their accommodations.

Not only is the space extraordinary, but several features have been introduced which every experienced ocean traveler will recognize as part of a scheme of comfort, with which he will be impressed more and more as he explores. The saloon smoking room is here, and some of the finest suites of rooms, and there is also a pantry expressly for the service of those passengers who prefer to lunch or dine in the open air rather than to eat in the saloon. Instead, therefore, of having to wait while the steward carries his orders to a lower deck, those who desire it can be served directly

THE WAYS AFTER THE LAUNCH; THE ST PAUL ON THE STOCKS.

from this special pantry, which is connected with the main pantry by a lift, so that with an accelerated service the food will be fresher and hotter than it has ever been before—no trifling consideration with those who have no appetite for the table d'hote served in the grand saloon. The suites of rooms are fully equal in luxury, and in size, to those of the Paris and the New York, and occupying one of them, with its private sitting room, bedroom, dressing and bath room, one can easily believe himself to be in a hotel instead of being at sea.

The decorations are the most artistic, and are in soft, yet rich effects, produced by the rarest woods and the most costly upholstery. In the suites, as in nearly every stateroom on the ship, there are wardrobes, closets and lockers for the bestowal of the passengers' belongings, as well as the most ingenious and hygienic toilet arrangements. Electric lights everywhere, of course—twelve hundred of them—and electric bells in such profusion that one can hardly reach out one's hand without touching one.

And in the matter of ventilation, also, great improvements have been made under a new system by which, while a current of fresh air is driven into every compartment, an exhaust withdraws from every room that which has been breathed.

The magnificent smoking room, with seats for nearly one hundred, with lounges and easy chairs, and with a large buffet, is quite isolated from the staterooms and the saloons ; and, therefore, he that enjoys his "weed" may smoke in peace without trespassing on the comfort of those who do not share his taste,

Dinner over, think of the exhilaration of a stroll on such a street as this promenade deck, with the restorative breath of the Atlantic blowing upon one, and the crisp, gladsome sea turning from gold to silver, as it does when the moon creeps out of the East before the sun has dipped into the West, or, if exercise is not our choice, it is but a step, without the descent of a single stair, into a sumptuous drawing-room, glowing with color, hung with tapestries, floored with rugs and carpets that give the impression of flower beds, pillowed with the most inviting of divans. But a few steps further down the grand stairway, and we reach a library, probably larger than that of any other ship afloat, and certainly as lavishly equipped as to furniture and books as any club library in the world. No more cheerful episode can occur to one than to pass out of the darkness of the night into either of these apartments where innumerable incandescent lights are burning, like so many golden-yellow chrysanthemums. There is music as well as color—a piano and a grand organ, available either for the services on Sunday, he regular concert, which has become one of the most interesting incidents of

SITTING ROOM OF PRIVATE SUITE.

BED ROOM OF PRIVATE SUITE.

the transatlantic voyage, or for the impromptu musicales, which are so easily and so charmingly arranged.

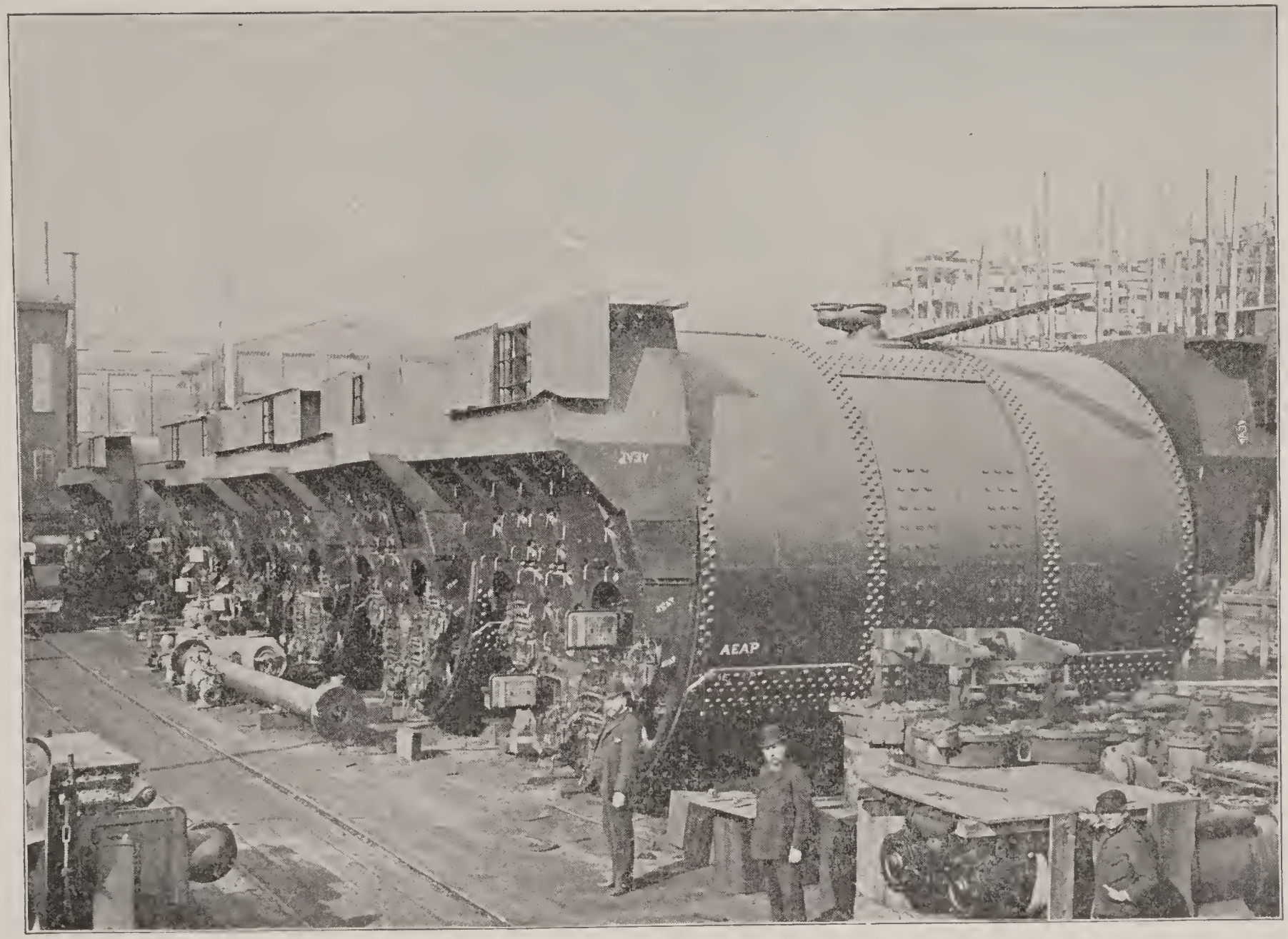
The promenade is the uppermost deck of all the five in this leviathan, the uppermost deck of all, except the shade or awning deck, and the saloon and the library are on the next deck below it.

The latter, where the boats are carried, is as high as a church tower above the keel, and is reserved exclusively for the captain and the navigating officers, so that they may be secluded from every distraction in working the ship, and may have a full view of her from stem to stern in all circumstances. The captain has his room, and all the officers have their's, with a commodious messroom besides, on the awning deck adjacent to the bridge, which is equipped with telegraphs communicating with every other department of the ship, with the engine room, with the after wheel-house, with the bows, and with every point to which it may be necessary to send an order. Everything that the science of navigation has evolved to insure perfection may be found here, the newest steering gear, and the most modern of instruments—all, too, instantaneously accessible to the whole navigating staff, which practically is never off watch.

From the drawing-room and smoking-room we descend by the sweep of the grand stairway into the saloon, which is almost exactly amidships, filling the entire space between the two enormous smokestacks, each as large as any railway tunnel. It is so spacious that there can never be a time that the full complement of passengers may not be seated at once, and all that the art of the decorator and the art of the upholsterer could do to give it beauty and sumptuousness has been used unsparingly. The effect is simple and chaste, not gaudy, or excessive, the principal wood used being white mahogany, with panellings of various designs in bas-relief. This noble banquetting hall (for so it may be described without exaggeration) can seat three hundred and fifty persons at once, and is spanned by a superbly decorated dome, which gives it both airiness and loftiness.

And here again one cannot fail to be struck as much by the utilitarian perfection of arrangements as by the beauty of the ship. The pantry, with its heaters, carving tables and glittering silverware, is so placed that it is practically out of sight, and it is not necessary for the passengers to pass through or near it in entering or leaving the saloon. Directly under it is an enormous kitchen, while over it is the promenade deck pantry to which reference has been made.

The table appointments are in keeping with the luxuriousness displayed elsewhere, and linen, glass, china and silver are of the highest quality and most tasteful patterns. Though you were Lucullus himself, naught



BOILERS OF ST LOUIS.

but soft content could prevail in the contemplation of the resources of the cuisine.

The staterooms are on three decks, and in inspecting them one carries away a most favorable impression of their commodiousness and the effectiveness of the ventilating apparatus. The beds are longer and wider than in other ships; little conveniences hitherto unthought of have been introduced; the bath rooms are models of their kind.

The advances and improvements made in the first cabin accommodations are paralleled in due degree in the steerage and the second cabin, which is certainly far more comfortable than any first cabin was but a few years ago.

We have said enough now to show that in the elements of luxury our new ships reach as high a standard as they do in respect to safety.

The third consideration is speed, and in that respect there is little doubt the St Paul and the St Louis will exceed all expectations, rivaling and perhaps surpassing the wonderful performances of the Paris and New York.

And here our brief review must end, leaving many ingenious appliances still unenumerated, and omitting mention of many features which will surely commend themselves to whoever sees them.

Again the American flag is restored to the sea, and in the St Louis and the St Paul it flies over vessels that may safely challenge comparison with anything afloat.

RAISING THE AMERICAN FLAG
ON THE
INTERNATIONAL NAVIGATION COMPANY'S S. S. NEW YORK.

ON the morning of Washington's Birthday, 1893, there lay in the harbor of New York, midway between the Battery and the Statue of Liberty, the mammoth steamer **City of New York,** on whose decks there was soon to occur an event which would herald a new epoch in the maritime history of the United States.

In accordance with a special act of Congress, the International Navigation Company, having agreed to build in the United States, two steamers, of equal tonnage and speed to that of the **New York** and **Paris,** the stars and stripes were about to be raised on the S. S. **City of New York,** which was henceforth to be known as the United States Mail Steamer **New York.**

The ceremony of raising the flag was performed by President Harrison, who, with the members of his Cabinet, and a large party of Senators, Congressmen and other prominent officials, had come by special trains from Washington, expressly for that purpose. There were also present the principal State officials from New York, New Jersey and Pennsylvania, besides numerous other prominent men.

The flag raising was prefaced by an address by Hon. W. Bourke Cockran, of New York, who had introduced the bill in Congress, under which the American register could be obtained. President Harrison then made some appropriate remarks, and as he closed with the words, "I deem it an entirely appropriate function that the President of the United States should lift the flag," he seized the ensign halliards, and as the bundle of silk slowly mounted the staff,—"there was a flash of blue and white, then a blaze of crimson,"—and "Old Glory" was proudly flying over the stern of what might well be termed the embodiment of the ship-builder's art. Simultaneously there flew from the bowsprit the Union Jack, from the mainmast the President's flag, from the mizzentop the United States mail flag, and from the foremast the American Line house flag, a blue eagle on a white ground; and, as if by magic, the steamer was dressed from stem to stern with flags of every description. Then came the thundering salutes to the flag from the big guns of the U. S. S. Chicago, anchored nearby; also from Castle William and the Brooklyn Navy Yard, and every craft for miles around dipped its pennant three times, while earsplitting shrieks were emitted from their steam whistles.

Thus was consummated, as has been said, one of the most dramatic and important events in the maritime history of the United States.

TWIN S. S. NEW YORK AND PARIS.

Twin S. S. New York and Paris.

THE **New York** and the **Paris** may justly be said to be the embodiment of the finest skill and workmanship which modern marine architecture has exhibited, and in point of comfort and rapidity of travel they are in the highest rank.

The dimensions of these two vessels are :—Length on water line, 525 feet ; length over all, 560 feet ; breadth, 63¼ feet ; moulded depth, 42 feet ; gross tonnage, 10,800. Siemens-Martin steel was exclusively employed in building the immense outer shell of the hull, which has a double bottom throughout, this arrangement being adopted so as to prevent any danger arising to the safety of passengers should the steamer run aground.

There are in each ship fifteen water-tight compartments, separated by transverse bulkheads, extending from the keel to the Saloon Deck, and rising 18 feet above the load water line. These bulkheads are solid structures of immense strength, containing no doors or opening of any kind, so that, should an accident occur, no aperture has to be closed at the last moment, and each section is complete in itself. Three of the water-tight compartments are set apart for the boilers and one for the engines, the latter space being further divided by a longitudinal bulkhead, so that the machinery is duplicated in the strictest sense of the term. Each compartment is 35 feet long. The First Cabin passengers are housed in the three water-tight compartments in the central part of the vessel, two compartments abaft are set apart for Second Class passengers, while the compartments at each end are devoted to Steerage passengers and cargo.

The grandest internal feature of the **New York** and the **Paris** is, beyond all doubt, the First Cabin Dining Saloon, located forward on the Saloon Deck. This is an apartment of truly noble proportions. It extends almost entirely across the ship, and the arched form of roof, with its cathedral glass centre, gives a majestic outline which is possible under no other arrangement. The space usually allowed between decks, even in the best passenger steamers, is about 8 feet, but in the **New York** and the **Paris** the principal Dining Saloon is carried through two decks and a half, the height attained at the crown being 20 feet, while the length of arch is 53 feet and the span 25 feet.

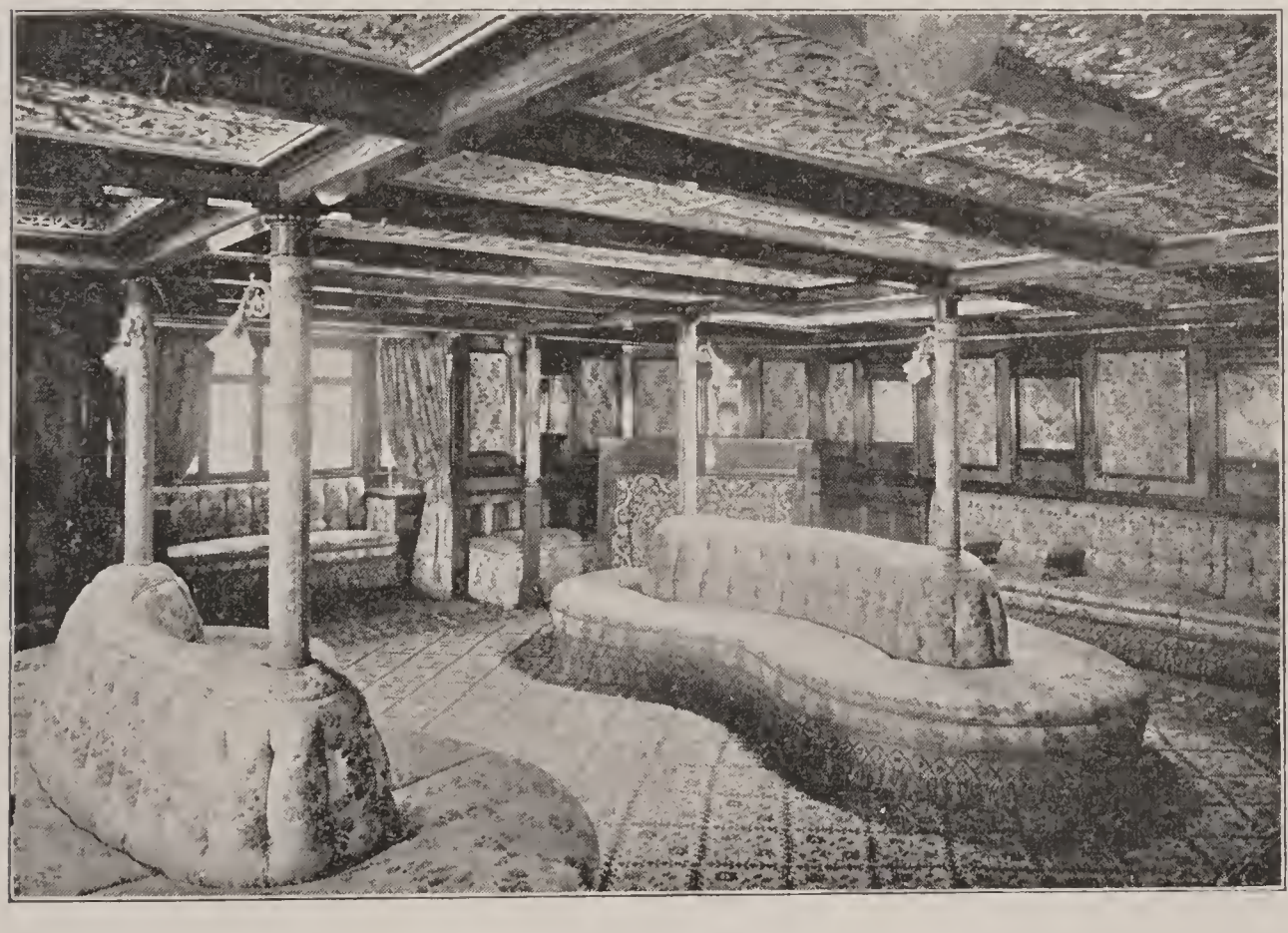
In this handsome chamber accommodation was originally provided for 260 passengers, but alterations have recently been effected in each ship, adding a Dining Saloon amidships, which enables 420 persons to dine at the same time. Notwithstanding the great advance made by modern hotels, it

DINING SALOON.

may still be claimed that no dining saloons on shore can compare with those of the **New York** and the **Paris**.

Well known artists were engaged to decorate the Dining Saloon, and every one will admit that they have succeeded admirably in their efforts. A white composition of peculiar ductility was used for the internal covering of the arch and of the organ loft which overlooks the Saloon. The panelling is brightened by appropriate representations of sea nymphs, dolphins and tritons, and the mythical marine company is completed by the presence of mermaids in the form of intermediate brackets. Cozy little alcoves are ranged round the sides of the Saloon, and here those who do not seek the popularity of the central tables may dine in home-like privacy. These dainty nooks have decorated panels in sycamore, with oak wainscot and maple lintels, and the whole of the appointments are *en suite*.

The Dining Saloon is seen to best advantage at night under the brilliant illumination of the electric light, reflected by scalloped shells in burnished brass—an ingenious arrangement of the electrician—which preserves the power of the light, while at the same time agreeably toning down its effulgent glitter.



DRAWING ROOM.

At the after end of the Dining Saloon is the grand staircase, rising by easy treads from a spacious vestibule to the Promenade Deck, and giving entrance to two apartments of marvellous beauty.

The first of these is the Drawing Room, which is a favorite lounge of the lady passengers in fair weather and in foul. It is adorned and appointed with exquisite taste. The ceiling is formed in deep panels, surrounded by a fretwork in gilt, and large mirrors, set in bright frames to correspond, are fixed to the walls of the apartment.

An oriel window built under the stained glass dome of the Dining Saloon commands an excellent view of that room, the opposite gable being utilized as the organ loft, which can, in like manner, be approached from the Promenade Deck. The organ, like the piano in the Drawing Room, is a first-class instrument.

LIBRARY.

On the after side of the Stair Hall is the Library, another sumptuous apartment, constructed in the form of an hour-glass, thus securing the *maximum* of light at the *minimum* sacrifice of deck space. The sides of this chamber are lighted from windows overlooking the Promenade Deck, and a central skylight makes it exceedingly bright and cheerful.

There is a lining of wainscot oak round the Library, and the names of many illustrious authors appear in carved scrolls upon the panels, while quotations from sea poems are inscribed upon the stained glass of the windows. Upon the shelves are about 900 judiciously selected volumes. There are the choicest writings of 250 American citizens, but no literary exclusion has been attempted, and the principal works of all the best authors may here be freely consulted.

SMOKING ROOM.

The First Class Smoking Room, 45 feet long and 27 feet wide, affords ample space for 130 gentlemen. The walls and ceiling of this room are panelled in American walnut, and the upholstery is in figured scarlet hide. There is a large bar at one end of the Saloon, and the convenience of the smoker is studied in every detail.

Upon the Promenade and Saloon Decks no fewer than forty rooms are set apart in fourteen suites for the use of families who wish to have separate accommodation. Each of these suites consists of bedroom, sitting-room, private lavatory, and in most cases a private bath. The bedrooms in these

suites are fitted with single and double beds, the berths being, as in a Pullman car, closed by day and open at night.

The Promenade Deck has been described, with no exaggeration of language, as the Public Park of the ship. It extends from one end to the other, a distance of nearly 190 yards. This splendid space is always kept perfectly clear. The lifeboats hang from the davits at a height of 8 feet above the promenade, and passengers are protected by an awning deck. In order that the wishes of everybody may be consulted, the extensive area thus reserved is divided by rails running fore and aft, the inner enclosure being kept for passengers who wish to sit in the comfortable deck chairs provided, while the outer line is at all times available as a promenade.

Placed on the Main Deck, below the level of the Grand Dining Saloon, and entirely isolated in an independent steel shell, without any aperture except those of the capacious ventilating shaft leading into the three great smoke-stacks, the principal kitchen is literally out of sight, smell or hearing. Nevertheless, the service is all that could possibly be desired by the most impatient epicure. Lifts, working silently by hydraulic power, carry the dishes into extensive pantries, from which they are served to the stewards. Similar arrangements exist in the case of the Second Cabin Dining Saloon.

The Second Cabin Dining Saloon is a handsome and well lighted apartment, 27 feet long and 40 feet wide, providing seats for 150 passengers. There is an excellent pianoforte in the room, and many musical entertainments here take place. The Second Cabin passengers enjoy the luxury of their own Smoking Room, together with the exclusive use of the after part of the Promenade Deck for the full width of its space.

Enormous power is concentrated in the engines which propel the **New York** and the **Paris,** and they embody many features of striking novelty. The twin screws are supported by massive steel trusses, fixed in a solid structure of cast steel weighing 26 tons. These screws are actuated by separate sets of machinery, the first introduced in Atlantic liners. The possibility of a complete breakdown in the machinery is thus reduced to a *minimum*, each set of triple expansion engines being capable of propelling the steamer at 15 knots while the other set remains motionless. Separate chambers have been provided for the two sets of engines, complete sub-division being gained by the longitudinal bulkheads mentioned, and these, together with the coal bunkers at each side, increase the number of water-tight compartments to twenty-five.

The boilers are worked on the forced draught system, the only hatches being those through which powerful fans draw down the air supply. These fans are twelve in number, and they are driven at the rate of 400 revolutions per minute. About 300 tons of coal are shoveled into the 54 furnaces of the nine boilers every day the vessel is at sea.

Messrs. Thomson & Biles' rudder has much to do with the safe navigation of the **New York** and the **Paris.** This rudder, which in reality forms part of the ship's hull, is one of the largest in the world, the area of one side covering 250 square feet. Quick turning is easily accomplished with a helm of such vast size, and the independent action of the twin screws rotating in opposite directions, gives valuable assistance in any necessary manœuvering.

Compound surface condensing engines are used for the hydraulic installation—the most extensive afloat—and the engine rooms also contain the electrical plant, the powerful current generated being employed both for illuminating and ventilating purposes, the ventilator in each compartment of the ship being capable of drawing off 250,000 cubic feet of air per hour.

The steamer is supplied with a powerful electric search light, and with a view to possible employment as an armed cruiser, the Promenade Deck is specially strengthened and arranged to carry fourteen 5-inch breech-loading guns. As a further precaution, the whole of the steering power is below the water line, and therefore in all these material particulars the vessels must be regarded as valuable adjuncts to the American navy.

TWIN S. S. KENSINGTON AND SOUTHWARK.

Twin S. S. Kensington and Southwark.

THE **Kensington** and **Southwark** are sister ships, and were built in 1894, the former by Messrs. J. & G. Thomson, Glasgow, and the latter by Messrs. Wm. Denny & Bros., Dumbarton.

Steel of the best quality was used in the construction of each ship, and they have been accorded the highest class at Lloyds and Bureau Veritas. They were designed with a double botton throughout, which removes danger in case of grounding; and the space between is available for water-ballast, thereby insuring greater stability. Each ship is so sub-divided by bulkheads that in case of an accident the inrush of the sea is confined to the injured compartment, and even two adjoining compartments might be damaged without at all endangering the safety of the vessel.

The First Cabin State-Rooms are located amidships on three decks—the Spar, Upper and Main deck. The wash-stands are the "Broadfoot Cabinet" which fold up when not in use, thus giving greater space in the rooms. The sanitary arrangements are of the latest pattern, and ventilation is assisted by the use of the Utley patent port-holes which admit the air, but close their valves against water.

The First-Class Dining Saloon, which is on the Promenade Deck amidships, occupies the entire width of the deck house, and accommodates 125 passengers at one sitting. This location ensures those essential qualities, perfect ventilation, and abundant light, the latter not only being admitted from the usual side ports, but also from a large and chastely decorated skylight. This room is panelled in polished hard woods, and on account of its location and size it is a most attractive and comfortable dining saloon.

The Drawing Room on the Promenade Deck, and the Smoking Room on the Spar Deck are both finished in hard wood similar to the First-Class Saloon.

Special attention has been given to the accommodation for Second Cabin passengers, the Saloon for this class being located on the Spar Deck, the Smoking Room on the Promenade Deck, while the State-Rooms are on the Upper and Main Decks.

These steamers are propelled by twin screws actuated by two sets of quadruple expansion engines, thus almost obliterating any posibilty of a complete breakdown, either engine being able to propel the vessel at a fair rate of speed.

The number of electric lights is 700, and in all respects these vessels are entitled to the front rank among ocean steamers.

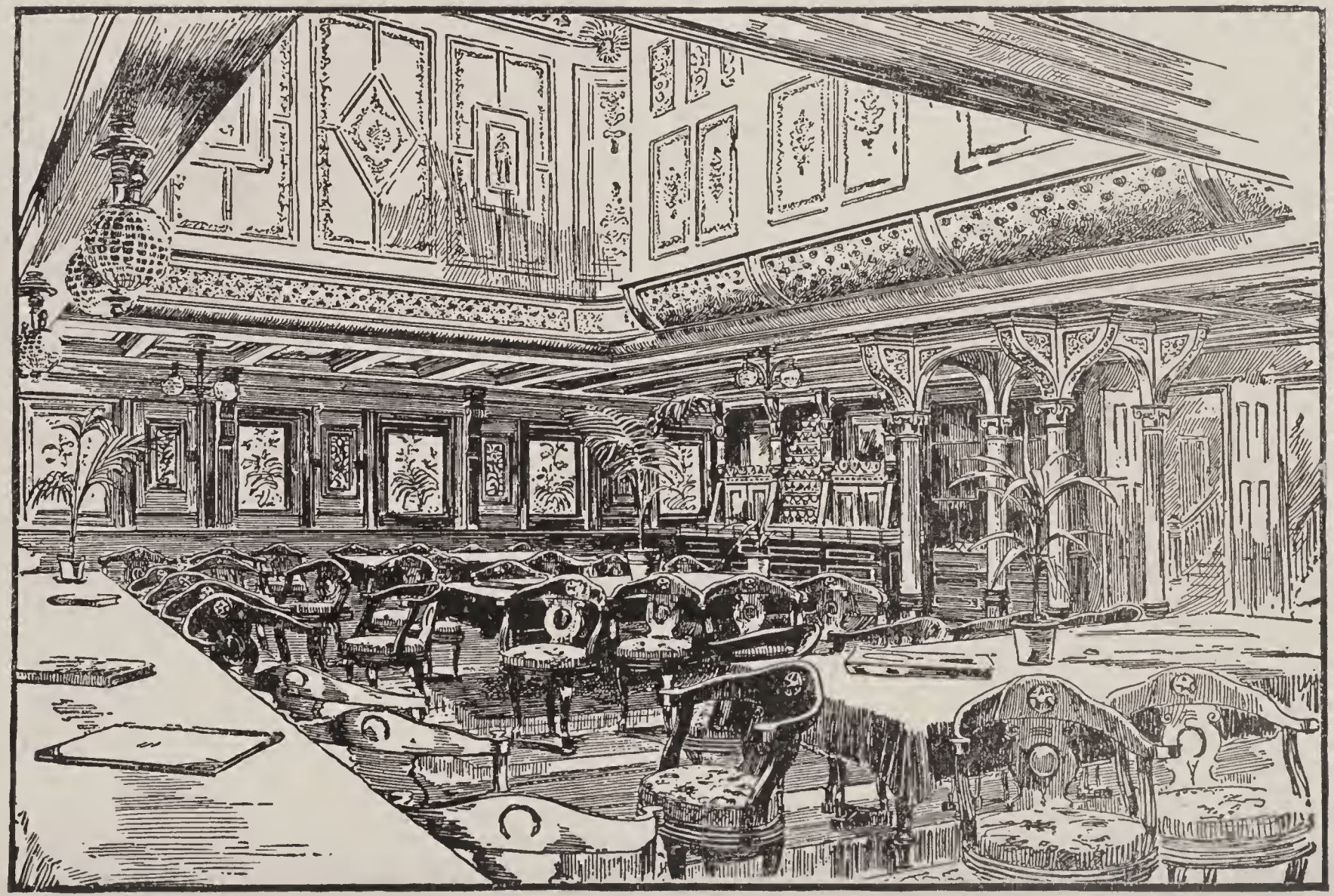
S. S. FRIESLAND.

S. S. Friesland.

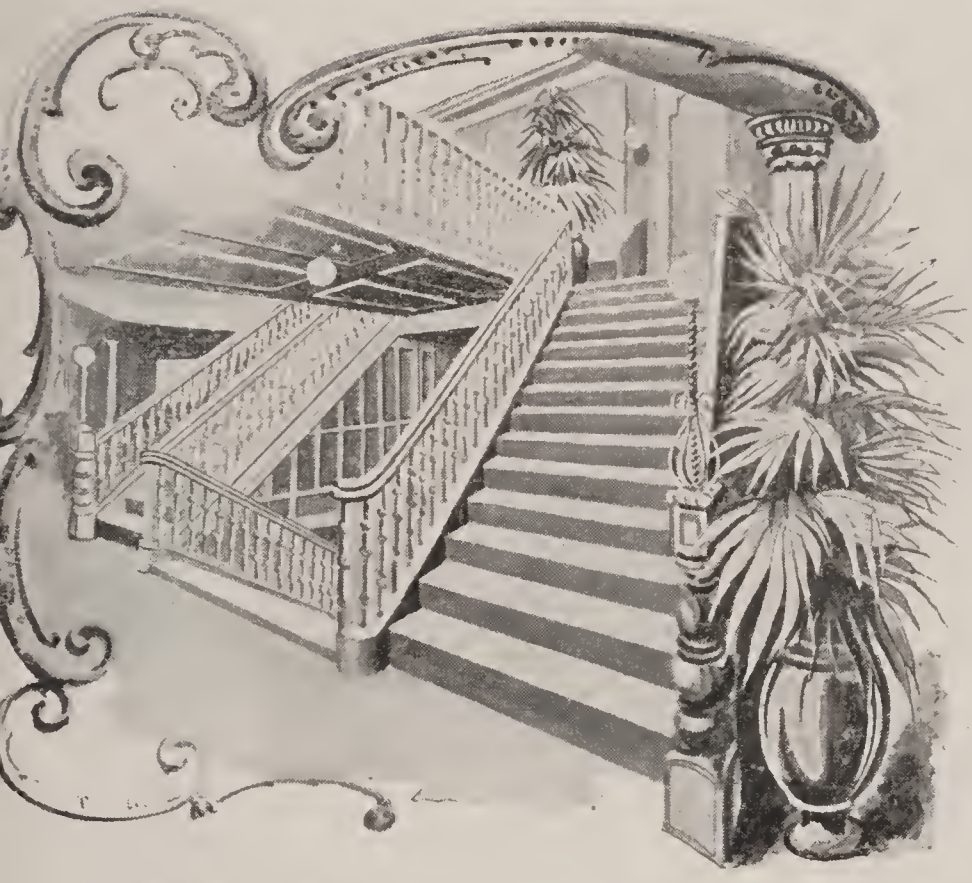
THE **Friesland** was built in Glasgow by Messrs. James and George Thomson, builders of the **Paris** and the **New York,** and was designed nearly upon the same lines as those steamers. She is built of Siemens-Martin steel and to accord with the highest class at Lloyds and Bureau Veritas. With a double bottom, on the cellular principle, she is free from harm if she grounds, and the space between is available for water ballast to the extent of one thousand tons. Internally she is divided transversely by numerous bulkheads, the space between the bulkheads being comparatively small. The passenger accommodation is arranged on the same principle as in the case of the **New York** and **Paris,** the First Class rooms are in the centre of the vessel, with the Second Class rooms just abaft. In the arrangement of boilers and machinery the convenience and comfort of the passengers have been studied, there being no openings on the Promenade Deck. The *cuisine* is relegated to the lower deck, and communication established with the pantry by means of lifts. There are three passenger decks—the Upper, Saloon and Promenade—the last of which extends two-thirds the length of the ship.

The Dining Saloon is forward of the machinery, and is large and airy, being lighted by a dome-shaped skylight, framed with chastely decorated stained glass on the top, while the sides are filled in with wooden panels, having on them appropriate hand-painted sea views. The Saloon is finished in carved oak, while the ceiling is in white, the relief work being in old gold. At the entrance to the Saloon is a hall, from which stairways lead to the State Rooms below and to the Drawing Room on the Promenade Deck above. This Drawing Room is an artistically furnished apartment, the walls of which are adorned with cedar and satin wood, in combination with silk panels. The roof is similar to that of the Dining Saloon. The First Class Smoking Room is on the Promenade Deck, and is internally constructed of dark mahogany frame work, with painted tile panels, and has a tiled floor. On the Saloon Deck, amidships, are seventeen State Rooms, and the remainder of the apartments for the First Class passengers are on the Upper Deck.

The Second Cabin Dining Saloon is finished in hard wood, and is on the Saloon Deck abaft the machinery; the State Rooms are on the Upper Deck. The Smoking Room is fitted internally similar to the First Cabin Smoking Room, and is also on the Promenade Deck. An attractive feature for this class is the number of rooms to accommodate two persons only. Throughout the ship are a large number of Broadfoot's ventilators, the special feature of which is that they may be left open in all weather.



CORNER IN MAIN SALOON.



COMPANIONWAY FROM SALOON TO PROMENADE DECK.

The propelling machinery is of the triple expansion type, and has been designed to take up the least possible room. The number of electric lights is 500. Two special turbine dynamos are fitted on board, and each is capable of maintaining all the lights in the ship. The life-boats are all carried above the Promenade Deck, an arrangement which largely increases the deck space for passengers.

The **Westernland** and **Noordland** are sister ships, built of steel by Messrs. Thomas Laird & Sons, of Birkenhead, England. They are lighted throughout by electricity, and their great beam in proportion to their length insures great steadiness at sea, and affords extra space for passengers on the Promenade Deck. The passenger accommodations are all amidships and extremely comfortable; the State-Rooms are far removed (by being on another deck) from the galleys, pantries, etc., and the light and ventilation are excellent; even the inside rooms, with very few exceptions, are lighted and ventilated by port-holes cut in the side of the deck-house above. These steamers are well known by the traveling public, and are deservedly most popular. They carry about 150 First Cabin and 60 Second Cabin passengers.

The **Friesland, Westernland** and **Noordland** have a number of extra large rooms called Family Rooms, which are fitted with exceedingly wide double berths accommodating two persons, and in addition have the usual wide upper and sofa berths. A whole family often finds sufficient accommodation in one of these rooms.

Many points in the above descriptions apply equally well to other steamers of these lines.

S. S. WESTERNLAND.

THE SECOND CABIN.

THE Second Cabin accommodations on the steamers of the **American** and **Red Star Lines** equal the First Cabin accommodations of the best steamers of a few years ago, and this class of travel has consequently largely increased.

The Dining Saloon.

The Second Cabin Dining Saloon is in a house on the Saloon Deck abaft the machinery. The ventilation and lighting of this Saloon is effected by means of large skylights and port holes, as in the case of the First Cabin Dining Saloon.

State Rooms.

The State Rooms, which are large and extremely well ventilated, are on the same deck with the First Cabin and are fitted with a view of affording the greatest amount of comfort.

Promenade Deck.

At the after end of the steamer is the Promenade Deck for Second Cabin passengers, which, on account of its location and size, affords solid comfort and enjoyment to this numerous class of passengers.

Smoking Room.

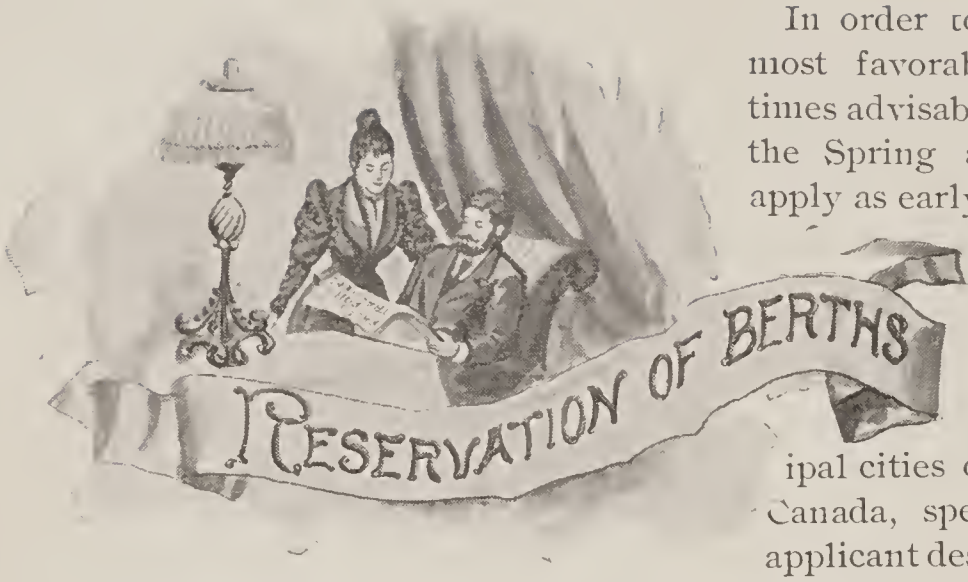
The Second Cabin Smoking Room is on the Saloon or Promenade Decks and is internally constructed in hard woods, similar to the First Cabin Smoking Room.

Stewards and Stewardesses.

Special stewards and stewardesses are assigned to the Second Cabin, who give the passengers the same care and attention as is received in the First Cabin

Special Notice.

The steadily increasing number of Second Cabin passengers traveling by the **American** and **Red Star Lines,** is evidence of the appreciation by this class of passengers of the attention and satisfactory service on the steamers of these lines.

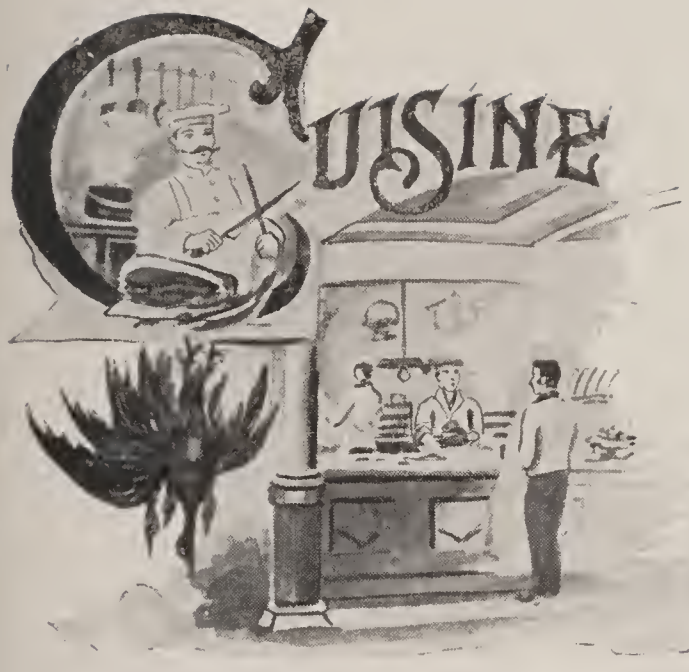


In order to secure rooms or berths most favorably located, it is at all times advisable, but particularly during the Spring and Summer season, to apply as early as possible to any of the General Offices of the **American** and **Red Star Lines,** or to one of the Company's numerous agents in any of the principal cities of the United States and Canada, specifying the steamer the applicant desires to take. These agents will send upon application, a cabin plan of the steamer the passenger selects, and designate the vacant berths or rooms from which choice can be made.

Cabin berths are not considered engaged unless secured by paying a deposit of 25 per cent.; no deposit, however, to be less that $25. The balance of passage money must be paid not later than ten days before sailing, and if it is not then paid the berths will be otherwise disposed of.

American and **Red Star Line** return tickets are good for passage from Europe by either the **American Line** from London, Havre or Southampton, or the **Red Star Line** from Antwerp. As both these lines are owned by the International Navigation Company, round trip tickets, which are issued at reduced rates, are available for return passage from London, Havre or Southampton, or from Antwerp, as may be desired.

are not necessary in most European countries, but naturalized citizens of the United States, and travelers generally, frequently find it to their advantage to carry with them this evidence of their citizenship. They are useful as a means of procuring admission to certain places of interest, and also for identification at banks or post-offices. Passports may be procured by application to the State Department at Washington, or to the cabin



passenger office of the **American** and **Red Star Lines,** 6 Bowling Green, New York.

The *cuisine* is a feature to which the management devotes special attention. Only the best culinary artists are engaged as cooks, and no expense is spared to provide an exceptionally good and liberal table. The steamers are supplied with all the delicacies of the season, and it is said by old and experienced travelers that the *cuisine* and attendance on the steamers of the **American** and **Red Star Lines** are equal to that of any first-class hotel in Europe or America. The wines, liquors and cigars are of the finest quality. They have been carefully selected and are sold on board at extremely moderate prices.

Seats at table are allotted by the Second Steward on the **American Line** and the Chief Steward on the **Red Star Line** immediately after the steamer leaves the pier. Nurses and children are served separately.

STEAMER CHAIRS.

Passengers may secure, for the nominal sum of 50 cents, the exclusive use of a Steamer Chair for the trip. These Steamer Chairs are owned by the **American** and **Red Star Lines,** and are of the most approved and comfortable design. They can be secured as well for the return voyage, and passengers who have crossed with their own chairs will at once appreciate not only the saving of expense, but of trouble and annoyance in looking after the chairs from the time they are purchased until they are finally stored at home.

Captains and Officers.

The Captains and Officers on the **American** and **Red Star** steamers have obtained their positions only through a regular line of promotion in the service, and after having proven themselves to be not only thorough seamen and disciplinarians, but at the same time courteous to the patrons of the lines.

Surgeons.

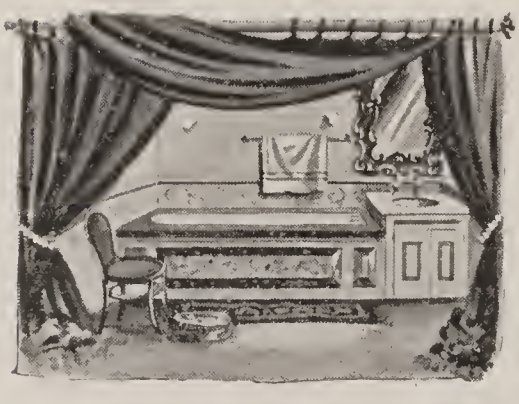
Each steamer carries an experienced Surgeon, and medicines are gratuitously supplied to those who require them.

Valuables.

The Company is not responsible for theft if valuables are kept in the State Rooms. Money, jewelry, etc., can be handed to the Purser for safe keeping.

BARBER SHOP.

The Barber is entitled to the usual remuneration for his services.



BATH ROOM.

Bath Rooms and Lavatories are provided for the use of cabin passengers, who can arrange for hot or cold baths at any time by applying to the Bed Room Steward. The Bath Rooms are thoroughly ventilated, lighted and heated, and are convenient of access.

Avoid overloading with unnecessary articles and packages, taking only what is absolutely essential. A steamer rug or shawl is a desirable article. Cabin passengers are allowed twenty cubic feet of personal baggage free of charge. Extra baggage will be charged for at the rate of 25 cents a cubic foot. Avoid extra large trunks. All articles wanted during the voyage should be put in a steamer trunk, which should not be higher than the space under the sofa in the State Room. Larger trunks are not allowed in the State Rooms but are stowed in the Baggage Room. All trunks and hand baggage should be provided with a tag giving the name of passenger, number of cabin, name of steamer, and whether or not the trunk will be wanted during the voyage. Tags can be obtained from the offices of the Company or from its agents. Passengers may send their baggage to the piers two days before sailing, but it must be plainly marked with the passenger's full name. Passengers arriving in New York from out of town, can have their baggage checked to the piers by the baggage express agent on the train.

European railways usually have three classes of cars or carriages on each train, and make a different allowance for free baggage for each class. The first class is luxuriously furnished, and corresponds approximately to the Pullman cars in America. The second class is quite comfortable but the seats and compartments are less spacious, while the third class carriages are generally neat and clean. All hand baggage is free. Through tickets for long distances are only issued for first and second class. Sleeping Cars are furnished on most of the through trains between important cities.

In traveling from one country to another, the Customs examination of baggage at the various frontiers need cause no annoyance. Spirits, tobacco and cigars are the articles mainly looked for. Passengers should be in readiness with their keys, opening their trunks as may be required, and

the declaration of anything liable to duty will facilitate the operation and prevent any unpleasantness. On European railways the charge for overweight baggage is quite high. The free allowance is about fifty pounds.

In connection with sailings and arrivals of American Line steamers fast twin-screw steamers, with excellent accommodations for cabin passengers, have been placed on the line between Southampton and Havre, thus affording a most desirable route between New York and Paris. The steamers leave Southampton at 12 midnight every week-day and make the passage in about six hours. Passengers usually arrive at Havre in good time to proceed by the first-class express train leaving there at 8 A. M., due in Paris (St. Lazare Station) at 11.30 A. M. Baggage can be checked from the steamer at Southampton to Paris, or *vice versa*, without examination by the British custom officials. There is also direct connection at Southampton with all points in Great Britain, the Continent, Channel Islands, Central America and the Southern Pacific, South Africa and all Australian, Chinese, Japanese and East Indian ports, and it is the port of departure of the ROYAL MAIL, CASTLE LINE and UNION LINE, for West Indian, South American and African ports.

Sailing from New York, steamers of the American Line proceed direct to the Empress Dock at Southampton, and suffer no delays from tides. Passengers land on terra firma, and find waiting on the pier, alongside, a special train, the Eagle Express, which will convey them to London in about one hour and forty minutes. This train is provided with smoking rooms, lavatories and toilet rooms.

Returning by **American Line,** the steamers sail from Southampton every Saturday *at noon*. The last special train from London leaves Waterloo Station, every Saturday at 9.40 A. M., and lands the traveler alongside the steamer. The customary amount of baggage is conveyed from Waterloo Station and put on board the steamer at Southampton without trouble or expense to passengers. Sailing at noon Saturday during the Summer and Autumn season, and when on the short track, passengers should be able frequently to dine at New York on Friday evening.

was founded in the seventh century, and is the chief seaport of Belgium. Population, 265,000. Antwerp was chosen as the terminus of the **Red Star Line** owing to its central geographical position. This city has complete and direct railroad and steamship connections, not alone with all parts of Europe, but with the world generally, and travelers intending to visit the Continent will find Antwerp a most advantageous point from which to commence their tour. Numerous trains leave Antwerp daily for Brussels, Paris, Cologne, Munich, Dresden, Berlin, Vienna, Rome, etc. The city itself offers innumerable objects of interest to the traveler. It was the centre of the Spanish Invasion of the Netherlands, and was once the largest port in the world. Its galleries and museums are renowned, being especially rich in the masterpieces of Rubens, Van Dyck, Rembrandt and all the other old Flemish artists. The Cathedral, the most beautiful gothic edifice in Belgium, and one of the finest in the world, was completed in the fourteenth century. The spire is 403 feet high, and very graceful, the chimes from which are famous. The "Descent from the Cross," considered the masterpiece of Rubens; his "Elevation of the Cross," "Assumption" and "Resurrection," with many other pictures by the most renowned artists, add to the interest of this church. The fine quays along the river Schelde were constructed by Napoleon I. in 1802.

At No. 9 Rue Scribe are the Paris offices of the **American** and **Red Star Lines,** Mr. Nicholas Martin, agent. Passengers visiting the French Capital will find on file the latest American and English papers, Railway Guides, Maritime Registers, Tariffs and Customs Duties, the Didot-Bottin of Paris and the Departments of France, the Post-office London Directory, New York and Liverpool Directories, and other works of reference.

Luggage directed to Nicholas Martin, 9 Rue Scribe, Paris, will be received, cared for, stored for any length of time, forwarded from Paris at a fixed rate upon receipt of instructions, and put on board ship at Antwerp or Southampton, as desired. American travelers making purchases in Paris or elsewhere, which they do not wish to carry in their trunks, can at once despatch the same to New York, through these offices.

Letters and telegrams may be directed to these offices. They can be obtained every day of the year (Sundays excepted), without charge. They will also be re-directed when required.

A register (as complete as possible) is kept of all American visitors to Paris, with the hotels or addresses at which they are staying.

INFORMATION FOR PASSENGERS SAILING BY HAVRE STEAMER FROM SOUTHAMPTON.

PASSENGERS' baggage will be transferred from the Ocean Steamer to the Havre Steamer free of charge, and without being opened for Customs examination, but Passengers must claim and identify their baggage before leaving the landing shed at Southampton, and point out which packages they desire to retain in their own charge, and those they desire to have registered through to Paris.

Baggage can only be registered through to Paris if the Passengers hold through tickets for Paris, and such baggage will not be subject to Customs examination at Havre, but will be examined by the Customs at the Gare St. Lazare, Paris, any time between 9 a.m. and 10 p.m.

Each First and Second Class Passenger is allowed 67 lbs. weight of baggage free of charge. For all baggage in excess of this the charge is $2.12 per 112 lbs. through from Southampton to Paris.

The baggage of Passengers who do not hold tickets to Paris will be examined by the Customs at Havre, and the Passengers will require to attend its registration from Havre to Paris. To save this trouble and the delay of Customs examination at Havre it is desirable for Passengers proceeding to Paris to book through before they leave Southampton.

An official attends at the landing shed in Southampton to meet all ocean steamers and register baggage and book passengers through.

On arrival of the steamer at Havre, omnibuses will be in attendance for the free conveyance of through booked Passengers to the Railway Station. The registered baggage is at once transferred to the Railway Station, and Passengers need not look after it, but those whose baggage is not registered must claim same at the Customs shed where it will be examined.

An interpreter in the uniform of the London and South-Western Railway Company will be in attendance, to assist Passengers with advice in any way that may be required while in Havre.

TERMINAL FACILITIES AT NEW YORK, LARGEST AND FINEST PIER IN THE WORLD.

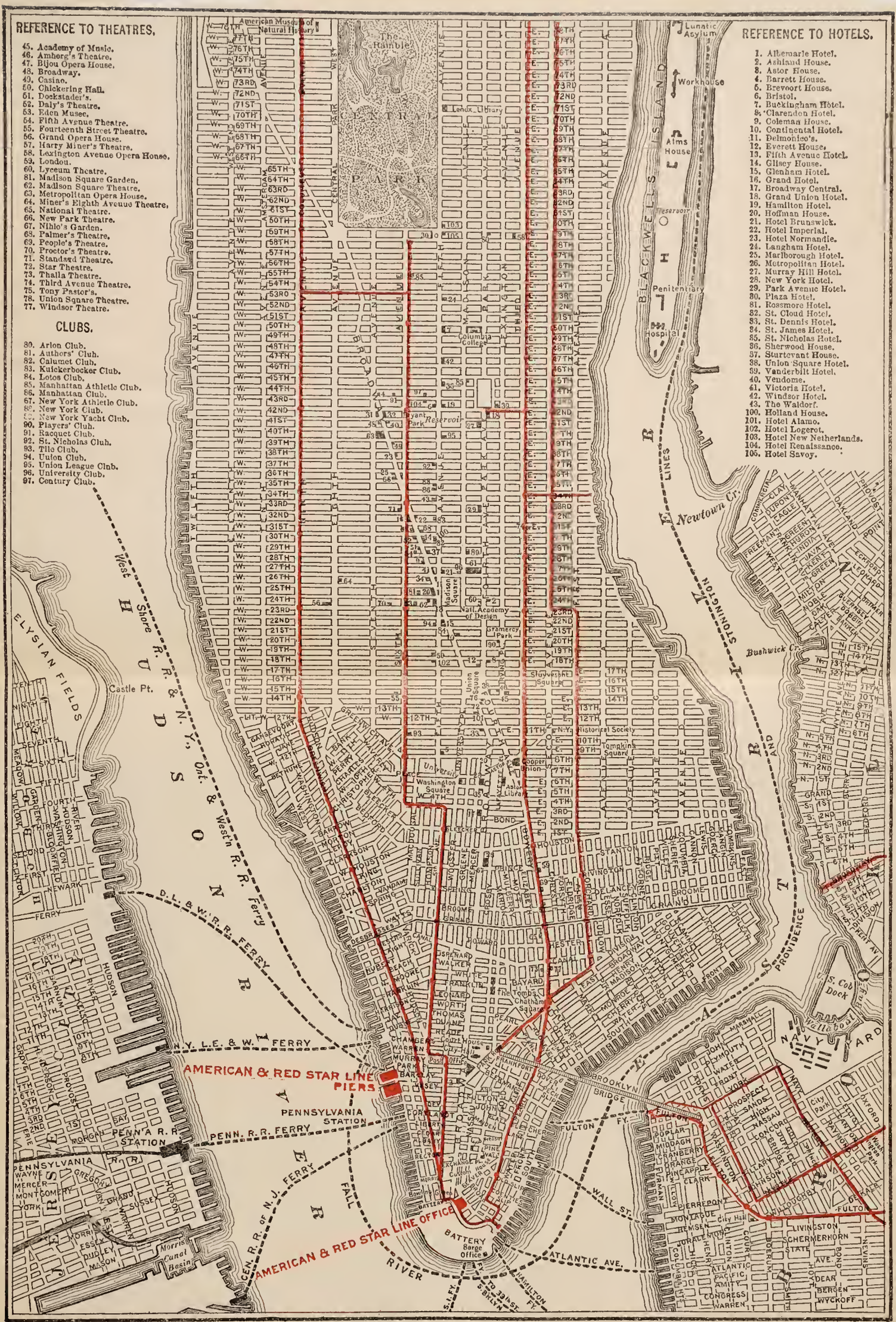
TO increase the comfort of its patrons the management has acquired the largest Steamship Pier in New York, which has been fitted with a second story and all possible conveniences, so that passengers now embark and land in New York more comfortably than ever before. Passengers land upon the second story, and with their baggage are entirely separated from the handling of freight and movement of trucks, carriages, etc. The adjoining pier, 15, has also been acquired and is being fitted up with a two-story shed similar to pier 14.

These piers are situated at the foot of Fulton Street, adjoining the Cortlandt Street Ferry of the Pennsylvania Railroad, and are close to the ferry terminus of the Baltimore & Ohio; New Jersey Central; Philadelphia & Reading; Erie; Delaware, Lackawanna & Western; New York, Ontario & Western; and West Shore Railroads; also, the Fall River & Stonington Lines, from New England points.

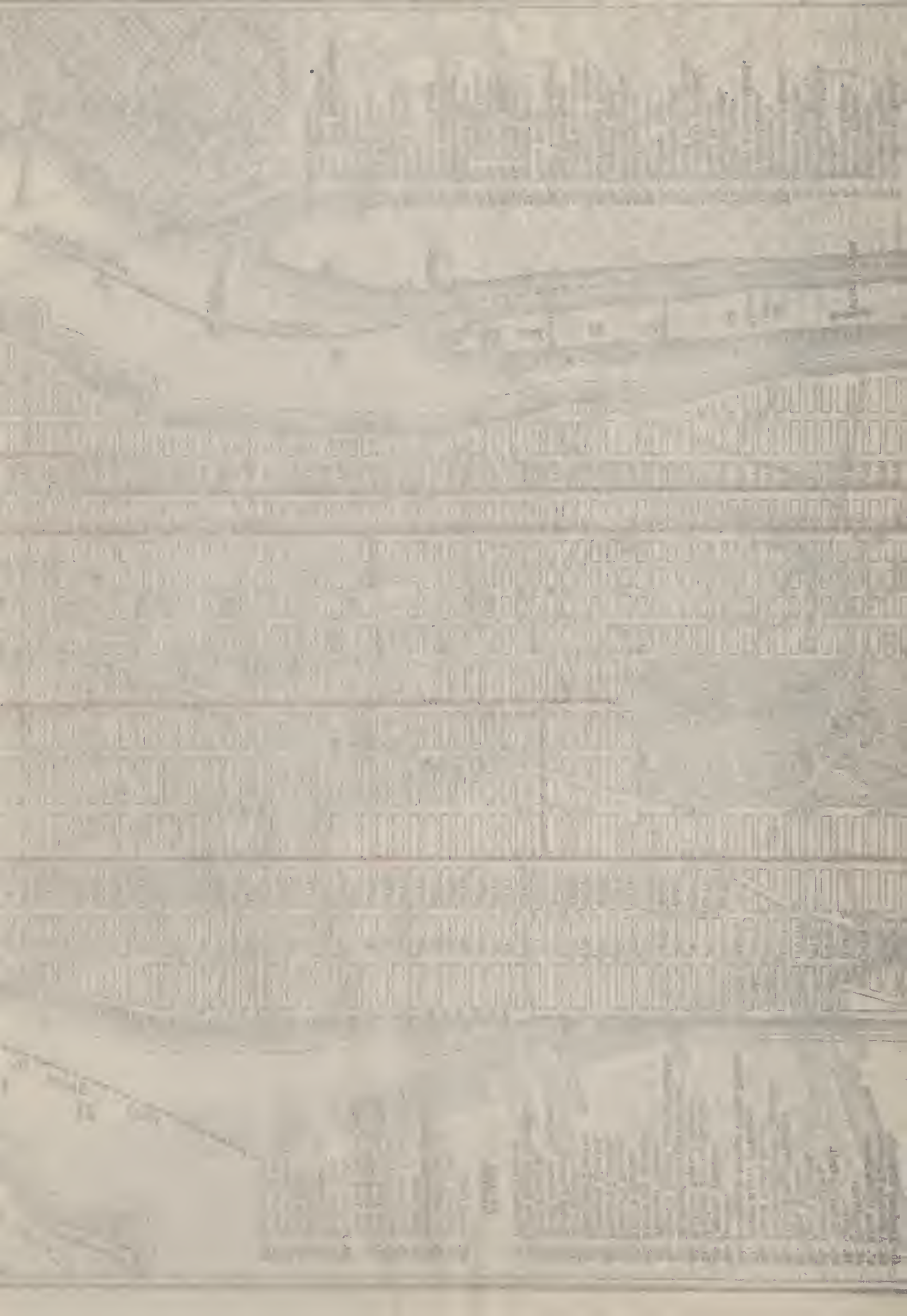
Pier to Pier, no Tenders.

American Line passengers embark from the pier in New York and land on the Empress Dock in **Southampton;** no detention at any port of call, no tidal delays at bars, no transfer by tender with exposure to weather and no landing stage. **Red Star Line** passengers embark and land, both in New York and Antwerp, without the aid of tenders. Steamers are berthed alongside the piers, which does away with the danger and discomfort from exposure to weather, when landing by tenders.

PIERS 14 AND 15, NORTH RIVER—AMERICAN AND RED STAR LINES.



NEW YORK CITY.



New Twin Screw Steamers "Columbia" and "Alma"—Maintaining the Service between Southampton and Havre.

Extract from "SOUTHAMPTON TIMES," 10th October, 1894.

"ON Saturday the new Steamer 'COLUMBIA,' built for the London and South-Western Railway Company, went on a trial cruise in the Firth of Clyde. She has been built by Messrs. James and George Thomson, Limited, Clydebank, and is intended for the Express, Mail and Passenger Service between Southampton and Havre, in connection with the Transatlantic Service of the American Line. The vessel is of the twin-screw type, and very fast. Between perpendiculars she is 270 ft. long, her beam is 34 ft., and her gross tonnage, 1,150 tons. The accommodation for Passengers is of the most luxurious kind. To suit the night voyage for which the vessel is specially intended, the Saloon accommodation is quite subsidiary to that for sleeping. In all, there are quarters in two-berth rooms for 100 First Class Passengers—an innovation which will doubtless be appreciated by travelers when it is considered that in many of the steamers of the Continental Routes the Passengers are accommodated in one large Saloon. The whole of the state-rooms in this class are situated almost exactly amidships, where the discomfort arising from the motion of the vessel is reduced to a minimum. There are three decks—main, upper and promenade, and on each there are state-rooms. These are exceptionally large and lofty, and in every respect quite equal to the accommodation provided on first-class Atlantic Liners. There is a complete installation of electric light. The first-class Saloon, though small, is beautifully fitted: it is panelled in polished plane-tree, with handsome mirrors alternating with carved spaces. On the promenade deck is the Smoking Room, a large and airy apartment panelled in dark oak and furnished with marble-topped tables and couches upholstered in morocco. At the after-end of the ship there are quarters for fifty Second Class Passengers, the accommodation being at least equal to the ordinary run of First Classes. There are two sets of triple-expansion engines, driving three-bladed manganese bronze propellers. The trial on Saturday consisted of a continuous run of six hours, during which the engines worked perfectly. The mean speed of the measured mile performance was about 19½ knots, or one knot more than was stipulated for in the contract. Even when running at the high speed there was an entire absence of vibration, a quality which is certain to be appreciated by night travelers."

The "ALMA," which is similar in every respect to the "COLUMBIA," has since been launched, and both are now in the service between Southampton and Havre.

SOUTHAMPTON.

THE accompanying plan, photographed from a drawing on a large scale, graphically exhibits the excellent accommodation afforded by the docks at Southampton. Covering an area of over 250 acres—the estate includes an open dock 16 acres in extent, with an average depth of 18 feet at low water spring tides, the average rise of the tides being 13 feet.

This basin is approached from the River Itchen through an entrance 150 feet wide, and adjoining it is a close dock of 10 acres, with a depth over the sill of 29 feet at high water spring tides, and of 25 feet at neap tides, the width of the entrance being 56 feet. The quay space at these two docks is over 7,500 feet in length, in addition to which the eastern arm of the Empress Dock provides a quay 1,850 feet long, with berthing spaces of 20 feet at low water.

The Empress Dock, opened by Her Majesty the Queen in July, 1890, covers an area of 18½ acres, and has a minimum depth of 26 feet at low water. It provides on the westerly and south-westerly sides quayage 1,900 feet in length, the whole of which space is devoted to the vessels of the American Line. The entrance to this dock is 175 feet wide. It is worthy of mention, as one of the great advantages offered by the port, that the Empress Dock is the only one in Great Britain where deep-water loading and discharging berths can be reached by the largest vessels at any time of the day or night, irrespective of the state of the tide.

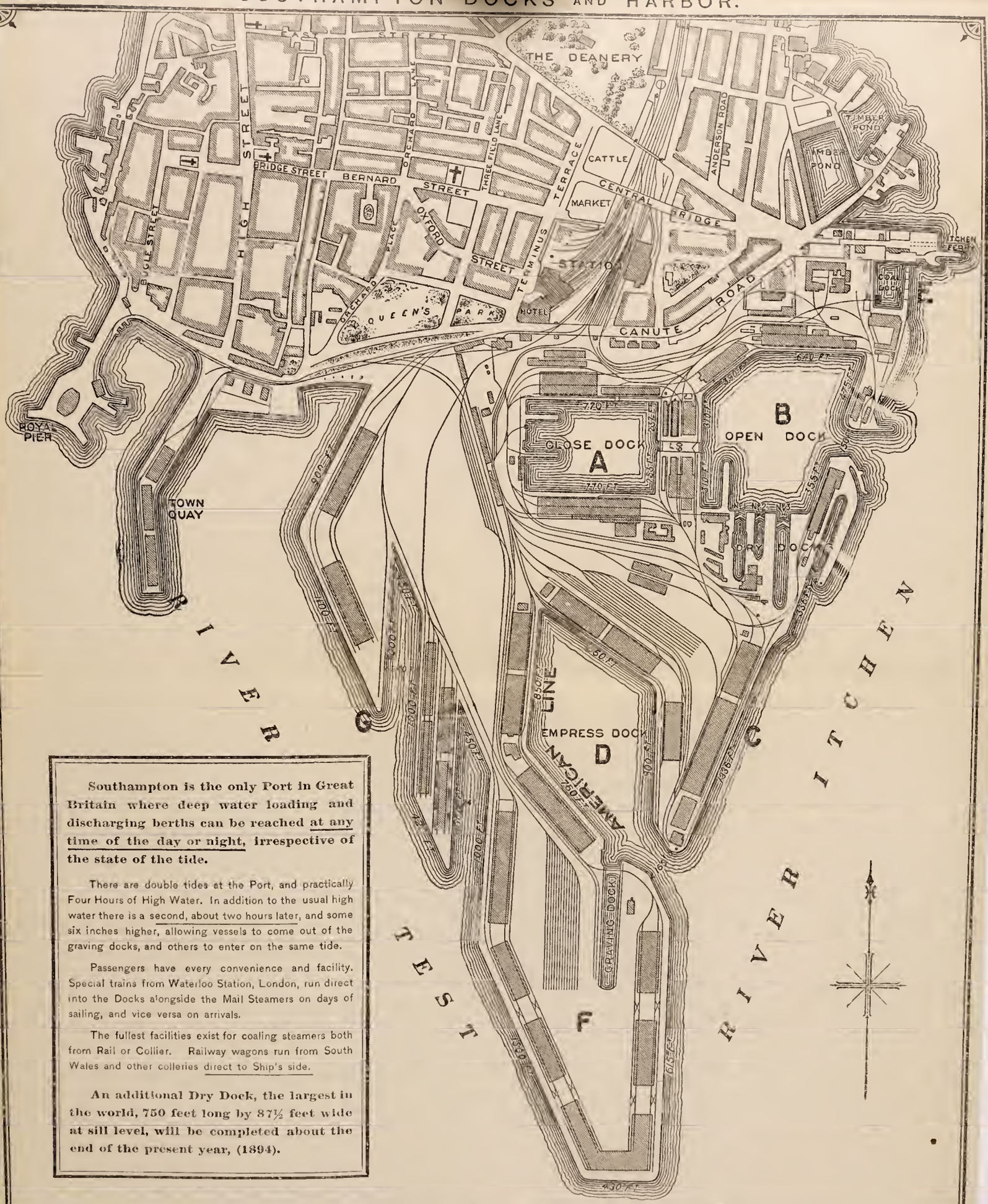
The channel leading from the sea to the docks is frequently dredged, so as to give a minimum depth at low water of 30 feet, and thus the most powerful steamers of the American Line are able to go straight into dock whenever they arrive at Southampton.

The new graving dock is 800 feet long, 110 feet wide, and 27 feet deep at low water neap tides. This is the largest graving dock in the world, and, with its quay space, covers an area of nearly 50 acres, the entrance being at the south-easterly angle of the Empress Dock.

Hydraulic cranes and capstans are erected throughout the dock system, which contains extensive warehouses, and the whole of the quays, together with the sheds and the approaches, are brilliantly lighted by electricity. In short, every necessary facility has been provided for the easy and quick handling of goods, which can be loaded and landed to and from the railway trucks in the dock sheds.

The port possesses all the benefits of a well-sheltered harbor, being quite land-locked, and the proximity of the Isle of Wight gives it the rare advan-

SOUTHAMPTON DOCKS AND HARBOR.



Southampton is the only Port in Great Britain where deep water loading and discharging berths can be reached at any time of the day or night, irrespective of the state of the tide.

There are double tides at the Port, and practically Four Hours of High Water. In addition to the usual high water there is a second, about two hours later, and some six inches higher, allowing vessels to come out of the graving docks, and others to enter on the same tide.

Passengers have every convenience and facility. Special trains from Waterloo Station, London, run direct into the Docks alongside the Mail Steamers on days of sailing, and vice versa on arrivals.

The fullest facilities exist for coaling steamers both from Rail or Collier. Railway wagons run from South Wales and other collieries direct to Ship's side.

An additional Dry Dock, the largest in the world, 750 feet long by 87½ feet wide at sill level, will be completed about the end of the present year, (1894).

DISTANCES FROM DOCKS.

TO CALSHOT CASTLE	6 MILES
" HURST CASTLE	22 "
" THE NEEDLES	26 "

DEPTH OF DOCKS.

	ACREAGE	DEPTH AT LOW WATER	DEPTH AT HIGH WATER
CLOSE DOCK	10 ACRES	- -	28 FEET
OPEN DOCK	16 "	18 FEET	31 "
EMPRESS DOCK	18 1-2 "	26 "	38 "
DEPTH ALONGSIDE NEW QUAY WALLS		28 "	40 "

PARTICULARS.

DRY DOCKS.

	No. 1	No. 2	No. 3	No. 4
LENGTH	400 FT	250 FT	500 FT	450 FT
WIDTH	66 FT	51 FT	80 FT	56 FT

NEW GRAVING DOCK.

LENGTH 750 FT WIDTH 112 1-2 FT

A.B.C.D.E EXISTING DOCKS AND WORKS.

F WORKS IN PROGRESS.

G PROPOSED QUAY EXTENSIONS.

THE SOUTHAMPTON DOCKS ARE 78 MILES FROM LONDON BY THE L. & S. W. RAILWAY, AND ARE IN DIRECT COMMUNICATION WITH THE ENTIRE RAILWAY SYSTEM OF ENGLAND.

LINES, EXTENDING TO A LENGTH OF 20 MILES, RUN ON ALL THE QUAYS AND INTO AND ALONGSIDE THE WAREHOUSES AND CARGO SHEDS.

tage of a double tide, which practically sustains high water for a period of four hours.

Southampton and its neighborhood are full of delightful associations. There are, indeed, few of our great maritime centres which are as fortunate in all their surroundings. Standing on an elevated peninsula at the northern limit of Southampton Water, flanked on the east by the River Itchen and the west by the estuary of the Test, within sight of the New Forest, the town presents from land and sea alike a singularly attractive aspect. In early British, Roman and Saxon days it played an active part in national history, and one of its most interesting relics is the Bar Gate.

In the sixteenth century, Leland described the High Street, in which this quaint old structure stands, as one of the fairest streets in any town in England, and the changes wrought by succeeding generations have not entirely robbed it of this proud distinction.

The Bar Gate consists of a massive pointed arch, dating from Norman, if not from Saxon times. On the north side, the arch is rich in mouldings of a subsequent period. This front of the Gate forms a semi-octagon, surmounted at each point by a semi-circular tower. Originally these towers were entered laterally, but the requirements of later days led to the footpath on each side being carried underneath the towers longitudinally. Although the details of the structure have not always been preserved in their entirety, the arch remains in an excellent state of preservation, its sturdy battlements being the same in the outline to-day as they were centuries ago. A chamber above the arch was long used as a prison, and from its portals Lord Scrope, the Earl of Cambridge, and Sir Thomas Grey were led out to execution for conspiracy against Henry V.

The Gaol is another interesting memorial of the past, with a record going back several hundred years, prisoners of war, as well as common malefactors, having at various epochs been confined within its gloomy walls.

The majority of American citizens who come to England by the American Line will no doubt make a point of visiting Netley Abbey, situate three or four miles outside Southampton, in a truly charming position. These beautiful ruins furnish an excellent example of early English architecture. The erection of the Abbey was begun in 1239 by the executors of the Bishop of Winchester, who set apart funds for the purpose, but many portions of the edifice have entirely disappeared.

Netley has become famous in more recent times for its Victoria Hospital, the noble range of buildings whose bright façade is seen from Southampton Docks. It is one of the first military infirmaries in the world, and the chief centre of British army medical instruction.

APPROXIMATIVE RATES OF FARE AND TIME

Between Antwerp and the Following Stations :

ANTWERP TO	Length of Journey	FARE		ROUTE
		1st Class	2d Class	
	hrs. min. about			
Aix-la-Chapelle	4.—	$2 58	$1 98	Gr. Central
"	.....	3 28	2 48	
Amiens	7.—	5 34	3 78	
Amsterdam	4.—	3 60	2 74	
Baden Baden	15.—	11 90	8 63	
Barmen	6.—	4 48	3 42	Gr. Central
Basel	13.—	13 45	9 72	
Bellinzona	22.—	20 50	14 67	
Berlin	15.—	17 96	13 36	
"	.....	16 32	12 23	Gr. Central
Berne	18.—	15 83	11 41	
Bingen	10.30	8 42	6 28	Gr. Central
Bochum	7.—	4 94	3 76	Gr. Central
Bonn	7.—	5 64	4 20	
"	.....	5 08	3 56	Gr. Central
Bremen	10.—	10 32	7 78	Gr. Central
Breslau	22.—	26 78.	19 65	
Brindisi	60.—	46 90	33 16	
Brunswick	12.—	11 55	8 66	Gr. Central
Brussels	1.—	67	50	
"	.....	84	63	(Express)
Calais	6.30	5 28	3 76	
Carlsruhe	14.—	12 49	9 05	
Cassel	11.—	9 58	7 20	Gr. Central
Chiasso	23.—	21 43	15 32	
Coblence	8.30	6 94	5 18	
"	.....	6 28	4 43	Gr. Central
Cologne	6.—	4 88	3 66	
"	.....	4 08	3 11	Gr. Central
Constance	17.—	15 23	10 94	
Crefeld	5.—	3 48	2 66	Gr. Central
Creuznach	10.—	8 95	6 43	
Darmstadt	11.30	9 82	7 34	
Dresden	19.—	20 20	15 04	
Dunkerque	6.—	2 74	2 03	
Düsseldorf	4.45	4 68	3 56	G. C. v. Aix
"	.....	3 72	2 86	" Gladb.
Elberfeld	5.45	4 40	3 36	Gr. Central
Ems	9.—	7 52	5 62	Gr. Central
Essen	6.30	4 88	3 76	
"	.....	4 58	3 50	Gr. Central
Florence	34.—	32 25	22 90	
Frankfort s/M	12.—	9 86	7 36	
Freiburg i/B	14.—	12 65	9 16	
Flushing	3.15	2 22	1 74	
Genoa	30.—	26 18	18 60	
Groningue	8.30	5 50	4 40	
Haarlem	3.30	3 46	2 68	
Hague, The	2.30	2 52	1 94	
Hamburg	13.—	13 18	9 90	Gr. Central
Hanover	10.—	12 30	9 16	
Heidelberg	13.—	11 07	7 93	Gr. Central
Homburg v/d. H	12.—	10 80	8 00	
Leipsic	17.—	17 42	12 96	
"	.....	16 17	11 86	Gr. Central
Leyden	3.—	2 84	2 20	
Lille	3.30	2 69	1 99	via Mouse.

ANTWERP TO	Length of Journey	FARE		ROUTE
		1st Class	2d Class	
	hrs. min. about			
London	8.—	$10 44	$7 78	via Dover
"	13.—	6 50	3 75	" Harwich
Lucerne	16.—	15 58	11 23	
Lugano	23.—	21 43	15 32	
Luxemburg	6.—	5 14	3 86	
Magdeburg	14.—	13 80	10 06	Gr. Central
Mannheim	12.30	10 37	7 52	
Mayence	11.—	9 24	6 86	Gr. Central
Metz	7.—	6 62	4 90	
M. Gladbach	4.—	2 92	2 26	Gr. Central
Milan	25.—	22 61	16 15	
Muhlhausen i/E	12.—	12 74	9 20	
Munich	22.—	19 50	13 91	
Neuss	4.30	3 38	2 62	Gr. Central
Nuremberg	19.—	15 52	11 11	
Offenbach o/M	12.—	10 56	7 83	
Offenburg i/B	12.—	11 22	8 13	
Paris	6.30	7 25	5 00	via Quévy
"	.....	7 25	5 00	" Menin
Prague	24.—	25 38	18 96	
Reims	8.—	6 49	4 86	
Rome	41.—	38 59	27 34	
Rotterdam	2.—	2 02	1 54	
Schiedam	2.30	2 14	1 64	
Stuttgart	16.—	14 09	10 00	
Turin	26.—	25 11	17 91	via Paris
Utrecht	3.—	2 98	2 38	
Vienna	32.—	30 19	22 76	
Wiesbaden	12.—	9 26	6 92	Gr. Central
Worms	12.30	10 46	7 74	Gr. Central
Zurich	16.—	15 41	11 12	

(SUBJECT TO CHANGE.)

P. S. Where no route is indicated it is understood to be by the Belgian State R.R.

On all the railways of Belgium, Germany, Switzerland, Italy, Spain and France, distances are measured by kilometres. The kilometre equals about five-eighths of an English mile.

FOREIGN MEASURES OF DISTANCES.

Austria	League	$4\frac{3}{4}$	English Miles.
Denmark	Mile	$4\frac{3}{4}$	
France	League	$3\frac{1}{4}$	
Germany	Geographical Mile	$\frac{5}{8}$	
Holland	Mijle or Kilometre	$4\frac{5}{8}$	
Italy	Mile	$1\frac{1}{4}$	
Portugal	League	$3\frac{13}{16}$	
Russia	Verst	$\frac{5}{8}$	
Sweden	Mile	$6\frac{5}{8}$	
Turkey	Berrie or Mile	$1\frac{1}{25}$	

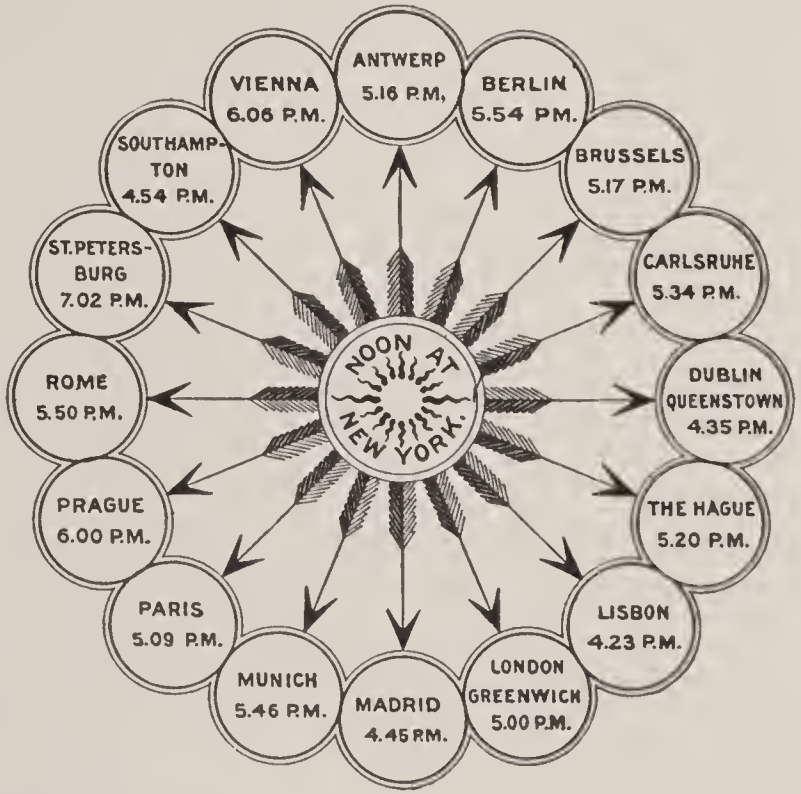
Before leaving America, passengers should provide themselves with sufficient English or French money to pay incidental expenses upon arriving at Southampton or Antwerp. The most convenient and safest way to carry money is in the shape of a letter of credit, or if the amount is not large, in the shape of sight drafts. Letters of credit are issued for sums of five hundred dollars and upward. The money can be drawn at designated banking houses in every city or town of any importance in Europe, the unused balance being paid in full to the passenger upon his return. Drafts payable in all European cities may be obtained in any amount desired from any banking house. Passengers, even those who intend to visit only the Continent, will find it advantageous to have letters of credit issued for English rather than for French or German money, as the exchange favors England.

Money Table

Showing the comparative values of the United States and other currencies.

U. S. A.	England.			France, Belgium, Switzerland.		Germany.		Italy.		Holland. Austria.		Norway. Sweden. Denmark.	
$ cts.	£.	s.	d.	Fr.	c.	Mks.	pf.	Lira.	c.	Fl.	cts.	Kr.	Ore.
01			½		5		4		5		2		4
02			1		10		8		10		5		8
06			3		31		25		31		15		22
10			5		52		42		52		24		37
20			10	1	00		85	1	00		48		74
24		1	0	1	25	1	0	1	25		60		89
27		1	2	1	40	1	12	1	40		67	1	00
49		2	0	2	50	2	4	2	50	1	20	1	81
73		3	0	3	75	3	6	3	75	1	80	2	70
97		4	0	5	00	4	8	5	00	2	40	3	59
1 22		5	0	6	25	5	10	6	25	3	00	4	52
1 95		8	0	10	00	8	16	10	00	4	80	7	22
2 43		10	0	12	50	10	21	12	50	6	00	9	00
2 92		12	0	15	00	12	25	15	00	7	20	10	82
3 41		14	0	17	50	14	28	17	50	8	40	12	63
3 65		15	0	18	75	15	30	18	75	9	00	13	52
3 89		16	0	20	00	16	32	20	00	9	60	14	41
4 38		18	0	22	50	18	36	22	50	10	80	16	22
4 86	1	0	0	25	00	20	42	25	00	12	00	18	00
9 72	2	0	0	50	00	40	84	50	00	24	00	36	04
19 44	4	0	0	100	00	81	68	100	00	48	00	72	12

DIFFERENCE IN THE TIMES SHOWN BY RAILWAY CLOCKS



In the above European Cities when it is 12 o'clock Noon at New York.

SCALE OF DIFFERENT THERMOMETERS AND BAROMETERS.

THERMOMETERS.				BAROMETERS.		
Reaumur.	Centigrade.	Fahrenheit.		Millimetres.		Inches.
80°	100°	212°	....WATER BOILS. (Bar. at 30 inch.)	715	=	28.15
				720	=	28.35
				725	=	28.54
76	95	203		730	=	28.74
72	90	194		735	=	28.94
68	85	185		740	=	29.13
63½	79½	174	....Alcohol Boils.	745	=	29.33
60	75	167		750	=	29.53
56	70	153		755	=	29.73
52	65	149		760	=	29.92
48	60	140		765	=	30.12
44	55	131		770	=	30.32
43	53	127	....Tallow Melts.	775	=	30.51
40	50	122		780	=	30.71
36	45	113	....Fever Heat.	785	=	30.91
34	42¼	108		790	=	31.10
32	40	104				
29	37	98	....Blood Heat.	Inches.		Millimetres.
28	35	95		31	=	787.4
25¾	32¼	90		30	=	762.0
24	30	80		29	=	736.6
21⅓	26⅔	86		28	=	711.2
20	25	77		27½	=	698.5
19	24	76	....Summer Heat.			
16	20	68		Intermediate heights—to be added to above :		
13¾	17¼	63		Millimetres.		Inches.
12	15	59		1	=	.039
10	13	55	....Temperate.	2	=	.079
8	10	50	....Temp. of Spring Water.	3	=	.118
5¾	7¼	45		4	=	.158
3⅓	4½	40		5	=	.197
1½	2	35				
0	0	32	....WATER FREEZES	Inches.		Millimetres.
— 4	— 5	23		0.1	=	2.5
— 5½	— 7	20	....Wine Freezes.	0.2	=	5.1
— 8	—10	14		0.3	=	7.6
—10	—12½	10		0.4	=	10.1
—12	—15	5		0.5	=	12.7
—14	—18	0		0.6	=	15.2
—16	—20	— 4		0.7	=	17.8
—19	—24	—10		0.8	=	20.3
—20	—25	—13		0.9	=	22.9
—24	—30	—20				

Bell Time.

The twenty-four hours are divided on board ship into seven parts, and the crew is divided into two parts or watches, designated Port and Starboard Watches. Each watch is on duty four hours, except from 4 to 8 P. M., which time is divided into two watches of two hours each, called Dog Watches, by means of which the watches are changed every day, and each watch gets a term of eight hours rest at night. *First Watch*, 8 P. M. to MIDNIGHT; *Middle Watch*, MIDNIGHT to 4 A. M.; *Morning Watch*, 4 to 8 A.M.; *Forenoon Watch*, 8 A. M. to NOON; *Afternoon Watch*, NOON to 4 P. M.; *First Dog Watch*, 4 to 6 P. M.; *Second Dog Watch*, 6 to 8 P. M.

THE BELL IS STRUCK EVERY HALF-HOUR TO INDICATE THE TIME, AS FOLLOWS:

1 Bell ..... 12.30 A. M.	1 Bell ..... 8.30 A. M.	1 Bell ..... 4.30 P. M.
2 Bells..... 1.00 "	2 Bells..... 9.00 "	2 Bells..... 5.00 "
3 " ..... 1.30 "	3 " ..... 9.30 "	3 " ..... 5.30 "
4 " ..... 2.00 "	4 " ..... 10.00 "	4 " ..... 6.00 "
5 " ..... 2.30 "	5 " ..... 10.30 "	1 Bell ..... 6.30 "
6 " ..... 3.00 "	6 " ..... 11.00 "	2 Bells..... 7.00 "
7 " ..... 3.30 "	7 " ..... 11.30 "	3 " ..... 7.30 "
8 " ..... 4.00 "	8 " ..... 12.00 NOON	4 " ..... 8.00 "
1 Bell ..... 4.30 "	1 Bell ..... 12.30 P. M.	1 Bell ..... 8.30 "
2 Bells..... 5.00 "	2 Bells..... 1.00 "	2 Bells..... 9.00 "
3 " ..... 5.30 "	3 " ..... 1.30 "	3 " ..... 9.30 "
4 " ..... 6.00 "	4 " ..... 2.00 "	4 " ..... 10.00 "
5 " ..... 6.30 "	5 " ..... 2.30 "	5 " ..... 10.30 "
6 " ..... 7.00 "	6 " ..... 3.00 "	6 " ..... 11.00 "
7 " ..... 7.30 "	7 " ..... 3.30 "	7 " ..... 11.30 "
8 " ..... 8.00 "	8 " ..... 4.00 "	8 " ..... 12.00 N'G'T

Greatest Known Depth of the Ocean.

The greatest known depth of the ocean is midway between the Islands of Tristan d'Acunah and the mouth of the Rio de la Plata. The bottom was here reached at a depth of 46,236 feet, or eight and three-fourth miles, exceeding by more than 17,000 feet the height of Mt. Everest, the loftiest mountain in the world. The average depth of all the oceans is from 12,000 to 18,000 feet.

Dimensions of the Oceans.

	Area Sq. Miles.	Average Depth.
Pacific	68 million	12,780 feet
Atlantic	35 "	12,060 "
Indian	25 "	10,980 "
Antartic	8½ "	6,000 "
Arctic	5 "	5,100 "

Tides.

The surface of the ocean rises and falls twice in a lunar day of about 24 hours and 52 minutes. The tides do not always rise to the same height, but every fortnight, after the new and full moon, they become much higher than they were in the alternate weeks. These high tides are called spring tides, and the low ones neap tides. The close relation which the times of high-water bear to the times of the moon's meridian passage shows that the moon's influence in raising the tides is much greater than that of the sun. It is, in fact, two and a half times as great.

Inland Seas of the World with their Area and Depth.

Name.	Size.	Depth.
Caspian Sea	176,000 square miles	250 feet
Sea of Aral	30,000 "	100 "
Dead Sea	303 "	200 "
Lake Baikal	12,000 "	750 "
Lake Superior	32,000 "	1,000 "
Lake Michigan	22,400 "	1,000 "
Lake Huron	21,000 "	1,000 "
Lake Erie	10,815 "	204 "
Lake Ontario	6,300 "	336 "
Lake Nicaragua	6,000 "	300 "
Lake Titicaca	3,012 "	800 "
Salt Lake	1,875 "	1,400 "
Lake Tchad	14,000 "	350 "
Lake Lodoga	12,000 "	1,200 "

Distances in Knots or Nautical Miles.

Eastbound, between July 25th and January 14th.

Sandy Hook Lightship to	*Knots.*
Antwerp	3,336
Fastnet	2,758
Fire Island	30
Flushing	3,288
Liverpool (via Queenstown)	3,055
Lizard	2,931
Needles	3,077
Newfoundland, Banks of	1,000
New York, (Pier 14, North River)	25
Ostend	3,264
Roche's Point	2,815
Scilly (Bishop Rock)	2,882
Southampton (Docks)	3,098

Philadelphia to	*Knots.*
Antwerp	3,506
Liverpool	3,225
Lizard	3,101
Roche's Point	2,985
Southampton	3,268

Miscellaneous.	
Scilly to Lizard	48
Lizard to Needles	146
Needles to Southampton	21
Southampton to Havre	112
Southampton to Flushing	206
Flushing to Antwerp	48

Between July 25th and January 14th, the Ocean distances from above points to Sandy Hook Lightship are about 30 miles shorter.

Between January 15th and July 25th, the Ocean distances between above points are increased by about 75 miles.

MILEAGE TABLES.

The following table of kilometres and miles will be found of some service while traveling abroad.

Kilos.	Miles.	Miles.	Kilos.	Kilos.	Miles.	Miles.	Kilos.
1	0.621	1	1.609	18	11.179	18	28.08
2	1.242	2	3.219	19	11.800	19	30.59
3	1.863	3	4.828	20	12.421	20	32.20
4	2.484	4	6.437	30	18.63	30	48.28
5	3.105	5	8.047	40	24.84	40	64.37
6	3.726	6	9.660	50	31.05	50	80.47
7	4.347	7	11.27	60	37.26	60	96.56
8	4.968	8	12.87	70	43.47	70	112.65
9	5.89	9	14.48	80	49.68	80	128.75
10	6.21	10	16.09	90	55.89	90	144.84
11	6.831	11	17.70	100	62.06	100	169.93
12	7.453	12	19.31	200	124.2	200	321.86
13	8.074	13	20.02	300	186.3	300	482.79
14	8.695	14	22.53	400	248.4	400	643.72
15	9.316	15	24.15	500	310.5	500	804.66
16	9.937	16	25.76				
17	10.558	17	27.37				

ENGLISH NAUTICAL MEASURES.

The circumference of the earth is divided into 360 degrees, each degree containing 60 knots or nautical miles; consequently the circumference of the earth, viz.: 131,385,456 feet—divided by 21,600 (360 x 60)—gives the length of a knot, viz.: 6,082.66 feet, which is generally considered the standard.

1 sea mile or British Admiralty Knot = 6,080 feet, or 1.1515 land or statute mile, or 1.852 kilometre. 1 Fathom = 6 feet. 1 Cable Length = 1-10th of a sea mile.

TABLE FOR CONVERTING KNOTS INTO MILES.

Knots.	Miles.	Knots.	Miles.	Knots.	Miles.	Knots.	Miles.
1.00	1.151	7.00	8.060	13.00	14.969	19.00	21.878
1.25	1.439	7.25	8.348	13.25	15.257	19.25	22.166
1.50	1.729	7.50	8.636	13.50	15.545	19.50	22.454
1.75	2.015	7.75	8.924	13.75	15.833	19.75	22.742
2.00	2.303	8.00	9.212	14.00	16.121	20.00	23.030
2.25	2.590	8.25	9.500	14.25	16.409	20.25	23.318
2.50	2.878	8.50	9.787	14.50	16.696	20.50	23.606
2.75	3.166	8.75	10.075	14.75	16.984	20.75	23.893
3.00	3.454	9.00	10.363	15.00	17.072	21.00	24.181
3.25	3.742	9.25	10.651	15.25	17.560	21.25	24.468
3.50	4.030	9.50	10.939	15.50	17.848	21.50	24.757
3.75	4.318	9.75	11.227	15.75	18.136	21.75	25.045
4.00	4.606	10.00	11.515	16.00	18.424	22.00	25.333
4.25	4.893	10.25	11.803	16.25	18.712	22.25	25.621
4.50	5.181	10.50	12.090	16.50	18.999	22.50	25.909
4.75	5.469	10.75	12.378	16.75	19.287	22.75	26.196
5.00	5.757	11.00	12.666	17.00	19.575	23.00	26.484
5.25	6.045	11.25	12.954	17.25	19.863	23.50	27.000
5.50	6.333	11.50	13.242	17.50	20.151	24.00	27.636
5.75	6.621	11.75	13.530	17.75	20.439	24.50	28.212
6.00	6.909	12.00	13.818	18.00	20.727	25.00	28.787
6.25	7.196	12.25	14.106	18.25	21.015		
6.50	7.484	12.50	14.393	18.50	21.303		
6.75	7.772	12.75	14.681	18.75	21.590		

TABLE OF PROPORTIONAL SPEED OF SHIPS.

1 KNOT BEING TAKEN AT 6,080 FEET.

Knots per hour.	Feet per minute.	Feet per 5 seconds.	Feet per 3 seconds.	Feet per second.
1	101.333	8.444	5.066	1.688
1½	152.	12.666	7.6	2.533
2	202.666	16.888	10.133	3.377
2½	253.333	21.111	12.666	4.222
3	304.	25.333	15.2	5.066
3½	354.666	29.555	17.733	5.911
4	405.333	33.777	20.266	6.755
4½	456.	38.	22.8	7.6
5	506.666	42.222	25.333	8.444
5½	557.333	46.444	27.866	9.288
6	608.	50.666	30.4	10.133
6½	658.666	54.888	32.933	10.977
7	709.333	59.111	35.466	11.822
7½	760.	63.333	38.	12.666
8	810.666	67.555	40.533	13.511
8½	861.333	71.777	43.666	14.355
9	912.	76.	45.6	15.2
9½	962.666	80.222	48.133	16.044
10	1013.333	84.444	50.666	16.888
10½	1064.	88.666	53.2	17.733
11	1114.666	92.888	55.733	18.577
11½	1165.333	97.111	58.266	19.422
12	1216.	101.333	60.8	20.266
12½	1266.666	105.555	63.333	21.111
13	1317.333	109.777	65.866	21.955
13½	1368.	114.	68.4	22.8
14	1418.666	118.222	70.933	23.644
14½	1469.333	122.444	73.466	24.488
15	1520.	126.666	76.	25.333
15½	1570.666	130.888	78.533	26.177
16	1621.333	135.111	81.066	27.022
16½	1672.	139.333	83.6	27.866
17	1722.666	143.555	86.133	28.711
17½	1773.333	147.777	88.666	29.555
18	1824.	152.	91.2	30.4
18½	1874.666	156.222	93.733	31.244
19	1925.333	160.444	96.266	32.088
19½	1976.	164.666	98.8	32.933
20	2026.666	168.888	101.333	33.777
20½	2077.333	173.111	103.866	34.622
21	2128.	177.333	106.4	35.466
21½	2178.666	181.555	108.933	36.311

DISTANCE OBJECTS ARE VISIBLE AT SEA LEVEL.

The following table shows the distance at sea level at which objects are visible at certain elevations.

Elevation—Feet.	Miles	Elevation—Feet.	Miles	Elevation—Feet.	Miles
5	2.96	100	13.23	500	29.58
10	4.18	200	18.72	1,000	33.41
20	5.92	300	22.91	1 mile	96.10
50	9.35				

LATITUDE AND LONGITUDE.

A table showing the number of miles in a degree of Longitude at each degree of Latitude.

Latitude.	Miles.	Latitude.	Miles.	Latitude.	Miles.
1°	60.0	31°	51.4	61°	29.1
2	60.0	32	50.9	62	28.2
3	59.9	33	50.3	63	27.2
4	59.9	34	49.7	64	26.3
5	59.8	35	49.1	65	25.4
6	59.7	36	48.5	66	24.4
7	59.6	37	47.9	67	23.4
8	59.4	38	47.3	68	22.5
9	59.3	39	46.6	69	21.5
10	59.1	40	46.0	70	20.5
11	58.9	41	45.3	71	19.5
12	58.7	42	44.6	72	18.5
13	58.5	43	43.9	73	17.5
14	58.2	44	43.2	74	16.5
15	58.0	45	42.4	75	15.5
16	57.7	46	41.7	76	14.5
17	57.4	47	40.9	77	13.5
18	57.1	48	40.1	78	12.5
19	56.7	49	39.4	79	11.4
20	56.4	50	38.6	80	10.4
21	56.0	51	37.8	81	9.4
22	55.6	52	36.9	82	8.4
23	55.2	53	36.1	83	7.3
24	54.8	54	35.3	84	6.3
25	54.4	55	34.4	85	5.2
26	53.9	56	33.6	86	4.2
27	53.5	57	32.7	87	3.1
28	53.0	58	31.8	88	2.1
29	52.5	59	30.9	89	1.0
30	52.0	60	30.0	90	0.0

SURFACE AND POPULATION OF EUROPEAN COUNTRIES AND U. S. A.

	Square miles.	Males.	Females.	Total.	Inhab. per sq. mile	Census of
Austria and Hungary	240,922	20,382,852	21,001,786	41,384,638	172	Dec. 31, 1890
Belgium	11,373	3,060,876	3,075,568	6,136,444	540	Dec. 31, 1891
Bulgaria	24,360	.....	.....	2,193,434	90	1888
Denmark	14,782	1,059,157	1,113,223	2,172,380	147	Feb. 1, 1890
France	204,092	.....	.....	38,343,192	188	April 12, 1891
Germany	208,590	24,230,832	25,197,638	49,428,470	237	Dec. 1, 1890
Great Britain and Ireland.	121,535	18,381,889	19,497,306	37,879,285	312	April 5, 1891
Greece	19,941	1,133,625	1,053,583	2,187,208	110	1889
Holland	20,527	2,284,628	2,337,116	4,621,744	222	Dec. 31, 1891
Italy	114,361	.....	.....	30,347,291	265	Dec. 31, 1891
Montenegro	3,656	.....	.....	ab. 200,000	ab. 55	At present
Norway	122,803	951,269	1,037,395	1,988,664	16	Dec. 31, 1890
Portugal	35,988	.....	.....	4,708,178	131	1881
Roumania	47,970	.....	.....	5,038,342	105	1889
Russia (*in Europe*)	2,261,017	50,853,598	50,582,740	101,436,338	45	1886
Servia	20,850	1,109,885	1,052,076	2,161,961	104	1890
Spain	196,981	8,612,524	8,953,108	17,565,632	89	Dec. 31, 1887
Sweden	170,900	2,317,187	2,467,794	4,784,981	28	Dec. 31, 1890
Switzerland	15,988	1,417,574	1,500,180	2,917,754	182	Dec. 1, 1888
Turkey (*poss. in Europe*).	62,028	.....	.....	ab. 5,600,000	ab. 90	At present
United States (*inc. Alaska*)	3,602,990	32,167,880	30,634,370	62,802,250	17	1890

POPULATION OF THE PRINCIPAL CITIES OF EUROPE AND U. S.,

With More than 200,000 Inhabitants.

	INHAB.	CENSUS.		INHAB.	CENSUS.
Amsterdam	426,914	Dec. 31, '91	Lisbon	242,297	1878
Antwerp	261,969	"	Liverpool	517,951	April 5, '91
Baltimore, Md	434,439	June 1, '90	London	4,211,056	"
Barcelona	272,481	Dec. 31, '87	Lyons	416,029	1891
Belfast	255,950	April 5, '91	Madrid	470,283	Dec. 31, '87
Berlin	1,579,244	Dec. 1, '90	Magdeburg	202,324	Dec. 1, '90
Birmingham	429,171	April 5, '91	Manchester	505,343	April 5, '91
Bordeaux	252,415	1891	Marseilles	403,749	1891
Boston, Mass	448,477	June 1, '90	Milan	425,000	Dec. 31, '91
Bradford	216,461	April 5, '91	Milwaukee, Wis	204,486	June 1, '90
Breslau	335,186	Dec. 1, '90	Moscow	753,469	1885
Bristol	221,665	April 5, '91	Munich	350,594	Dec. 1, '90
Brooklyn, N. Y	957,163	1892	Naples	536,000	Dec. 31, '91
Brussels (faubourgs incl.)	458,208	Dec. 31, '91	New Orleans, La	242,039	June 1, '90
Buffalo, N. Y	255,664	June 1, '90	New York, N. Y	1,801,739	1892
Chicago, Ill	1,099,850	"	Nottingham	211,984	April 5, '91
Cincinnati, Ohio	296,908	"	Odessa	240,000	1885
Cleveland, Ohio	261,353	"	Palermo	272,000	Dec. 31, '91
Cologne	281,681	Dec. 1, '90	Paris	2,447,957	1891
Constantinople	873,565	approx. at pres.	Philadelphia, Pa	1,142,653	1892
Copenhagen	312,859	Feb. 1, '90	Pittsburg, Pa	238,617	June 1, '90
Detroit, Mich	205,876	June 1, '90	Rome	436,000	Dec. 31, '91
Dublin	245,001	April 5, '91	Rotterdam	216,679	"
Edinburgh	263,646	"	San Francisco, Cal	298,997	June 1, '90
Genoa	210,000	Dec. 31, '91	St. Louis, Mo	451,770	"
Glasgow	658,198	April 5, '91	St. Petersburg	861,303	1885
Hamburg	569,260	Dec. 1, '90	Sheffield	324,243	April 5, '91
Leeds	367,506	April 5, '91	Stockholm	250,528	Dec. 31, '91
Leipsic	357,147	Dec. 1, '90	Turin	329,000	"
Lille	201,211	1891	Varsovie	443,426	1885
			Vienna	1,364,548	Dec. 31, '90
			Washington, D. C	230,392	June 1, '90

CHIEF POWERS OF EUROPE.

States.	Sovereigns.	Birth.	Accession.
Austria	Emperor Franz Joseph I	Aug. 18, 1830	Dec. 2, 1848
Belgium	King Leopold	April 9, 1835	Dec. 10, 1865
Denmark	King Christian IX	April 8, 1818	Nov. 15, 1863
France	A Republic		
Germany	Emperor William II	Jan. 27, 1859	June 15, 1888
Great Britain and Ireland	Queen Victoria	May 24, 1819	June 20, 1837
Greece	King George I	Dec. 24, 1845	June 6, 1863
Italy	King Humbert I	Mar. 14, 1844	Jan. 9, 1878
Netherlands	Queen Wilhelmina	Aug. 31, 1880	Queen Emma Q. Regent.
Portugal	King Dom Carlos I	Sept. 28, 1862	Oct. 19, 1889
Roumania	Charles I	April 20, 1839	Mar. 26, 1881
Russia	Emperor Nicholas II	May 18, 1868	Nov. 1, 1894
Spain	Alphonso XIII	May 17, 1886	Dona Maria Q. Regent
Sweden and Norway	King Oscar II	Jan. 21, 1829	Sept. 18, 1872
Switzerland	A Republic		
Turkey	Sultan Abdul Hamid II	Sept. 22, 1842	Aug. 31, 1876

POPULATION OF THE EARTH BY CONTINENTS.

(From Proceedings of the Royal Geographical Society for January, 1891.)

Continental Divisions.	Area in Sqare Miles.	Inhabitants.		Continental Divisions.	Area in Square Miles.	Inhabitants.	
		Number.	Per Sq. Mile.			Number.	Per Sq. Mile.
Africa.....	11,514,000	127,000,000	11.0	Europe.....	3,555,000	380,200,000	106.9
America, N...	6,446,000	89,250,000	13.8	Polar Regions	4,888,800	300,000	0.7
America, S....	6,837,000	36,420,000	5.3				
Asia.....	14,710,000	850,000,000	57.7	Total.....	51,238,800	1,487,900,000	29.0
Australasia....	3,288,000	4,730,000	1.4				

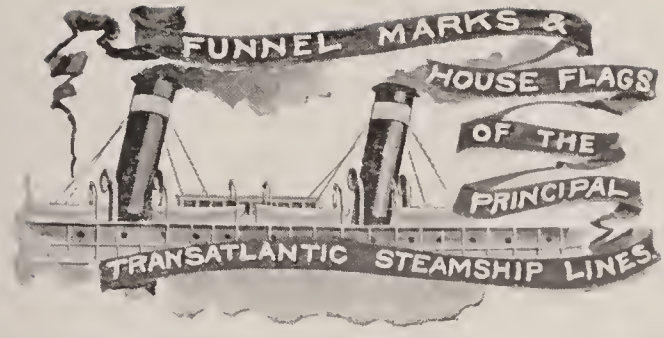
EUROPEAN LANGUAGES SPOKEN.

Languages	Number of Persons Spoken by		Percentage of the Whole.		Languages	Number of Persons Spoken by		Percentage of the Whole.	
	1801.	1890.	1801.	1890.		1801.	1890.	1801.	1890.
English ...	20,520,000	111,100,000	12.7	27.7	Portuguese	7,480,000	13,000,000	4.7	3.2
French....	31,450,000	51,200,000	19.4	12.7	Russian ...	30,770,000	75,000,000	19.0	18.7
German...	30,320,000	75,200,000	18.7	18.7					
Italian.....	15,070,000	33,400,000	9.3	8.3	Total.....	161,800,000	401,700,000	100.0	100.0
Spanish ...	26,190,000	42,800,000	16.2	10.7					

These estimates by Mulhall (1891) exhibit the superior growth of the English language in the last ninety years. Another authority estimates the number using the English language in 1893 at over 117,000,000. English is rapidly becoming the polite tongue of Europe.

DISTANCES AND APPROXIMATE MAIL TIME TO FOREIGN CITIES FROM THE CITY OF NEW YORK.

By Postal Route to	Miles.	Days.	By Postal Route to	Miles.	Days.
Adelaide, via San Francisco..	12,845	34	Havana.....	1,413	3
Alexandria, via London	6,150	14	Hong Kong, via San Francisco	10,590	30
Amsterdam, " "	3,985	9	Honolulu, via San Francisco..	5,645	13
Antwerp, " "	4,000	9	Liverpool.....	3,540	8
Athens, " "	5,655	14	London.....	3,740	8
Bahia, Brazil.....	5,870	21	Madrid, via London.....	4,925	10
Bangkok, Siam, via San Francisco.	12,990	43	Melbourne, via San Francisco	12,265	32
Batavia, Java, via London....	12,800	35	Mexico City (Railroad).....	3,750	5
Berlin, via London.....	4,385	9	Panama.....	2,355	7
Bombay, "	9,765	26	Paris	4,020	8
Bremen, "	4,235	9	Rio de Janeiro.....	6,204	24
Buenos Ayres.....	8,045	29	Rome, via London.....	5,030	10
Calcutta, via London.....	11,120	29	Rotterdam, via London.....	3,935	9
Cape Town, via London.....	11,245	27	St. Petersburg, via London...	5,370	11
Constantinople, via London..	5,810	13	Shanghai, via San Francisco..	9,920	31
Florence, via London.....	4,800	10	Stockholm, via London.....	4,975	10
Glasgow.....	3,375	9	Sydney, via San Francisco....	11,570	31
Greytown, via New Orleans..	2,810	8	Valparaiso, via Panama.....	5,910	32
Halifax, N. S.....	645	2	Vienna, via London.....	4,740	9
Hamburg, via London.....	4,340	9	Yokahama, via San Francisco	7,348	22



F.—Funnel. H.—House-flag.

American.—F. Black: white band; black top. H. White, with blue eagle.

Red Star.—F. Black; white band; black top. H. White swallow tail, with five-point red star.

Allan.—F. Red; narrow black band in centre, white band under black top. H. Blue, white, red, perpendicular stripes; red pennant above the flag.

Anchor.—F. Black. H. White swallow tail, with red anchor.

Beaver.—F. Black; two white bands with black band between; black top. H. White, blue border, black beaver in centre.

Cunard.—F. Red; two narrow black bands, dividing red into three equal parts; black top. H. Red, yellow lion in centre holding globe.

Dominion.—F. Red; white band; red band; black top. H. Red, with white diamond, containing blue ball.

Fabre.—F. Black. H. White with blue cross.

Florio.—F. Black, white, black in equal parts. H. White and red, quartered, with yellow lion and red cross.

French.—F. Red; black top. H. White, with red ball, and Cie. Gle. Transatlantique in red.

Hamburg-American.—F. Buff, express service; black, regular service. H. Blue and white, diagonally quartered, yellow shield in centre, with black anchor and letters H. A. P. A. G.

Hill.—F. Cream. H. White, with N. H. in red, and two propellers in blue.

National.—F. White; black top. H. Red, diagonal white cross, with blue border, Union Jack in centre.

Netherlands.—F. Black; two green bands, with white band between; black top. H. Green, white, green, N. A. S. M. on white stripe.

North German Lloyd.—F. Cream. H. White, blue key and anchor crossed, and oak-leaf wreath.

Thingvalla.—F. Cream; white band, with blue star on each side; black top. H. White, with seven-point blue star.

Union.—F. Black and pea green, in equal parts; black top. H. Blue, white castle with towers in centre, and five-point white star in each corner.

Warren.—F. Black. H. Red, with white diamond in centre.

White Star.—F. Salmon; black top. H. Red swallow tail, with five-point white star in centre.

Wilson.—F. Red; black top. H. White pennant with red ball, pennant point slit.

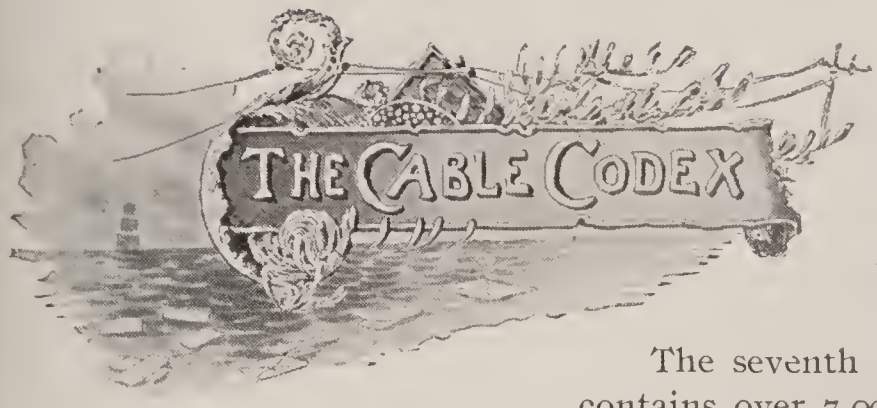
USEFUL SENTENCES.	PHRASES UTILES.	NOTHWENDIGE CONVERSATION.	FRASE UTILI.
ENGLISH.	FRENCH.	GERMAN.	ITALIAN.
Cab, Coach.	Fiacre, voiture.	Droschke, Wagen.	Carrozza.
Take me to ——— Street, No. ———	Conduisez moi à la Rue ——— numero ———	Fahren sie mich nach Numero——— Strasse.	Conducetemi alla strada ———numero———
Stop.	Arrêtez.	Halt.	Fermatevi.
What is your fare?	Qu'ai-je à vous payer?	Was habe ich zu bezahlen?	Quanto?
Engaging furnished apartments.	Louer un appartement meublé.	Meublirte Wohnung zu miethen.	Appartamenti ammobigliati a affittare.
The sheets are damp.	Les draps sont humides.	Die Bett-tücher sind feucht.	I lenzuoli sono umidi.
Give me.	Donnez-moi	Geben Sie mir.	Datemi.
Blanket.	Couverture de laine.	Wollene Decke.	Coperta di lana.
Bottle.	Carafe, bouteille.	Flasche.	Bottiglia.
Candle.	Chandelle.	Wachslicht.	Candela.
Chair.	Chaise.	Stuhl.	Sedia.
Coal.	Charbon.	Steinkohle.	Carbone.
Glass.	Verre.	Glas.	Bicchiere.
Plate.	Assiette.	Teller.	Tondo, piatto.
Key.	Clef.	Schlüssel.	Chiave.
Landlord.	Propriétaire.	Wirth.	Padrone.
Soap.	Savon.	Seife.	Sapone.
Stairs.	Escalier.	Treppe.	Scala.
Story.	Etage.	Stockwerk, Etage.	Piano.
Towel.	Essuie main.	Handtuch.	Sciugamano.
Basin.	Cuvette.	Wasch-Schüssel.	Bacino.
Pitcher.	Cruche.	Krug.	Brocca.
Matches.	Allumettes.	Streich-hölzer.	Zolfanelli, fiammiferi.
Window.	Fenêtre.	Fenster.	Finestra.
Door.	Porte.	Thüre.	Porta.
Bed-room.	Chambre â coucher.	Schlaf-Zimmer.	Stanza da letto.
Dining-room.	Salle à manger.	Speise Saal.	Sala da pranzo.
Cellar.	Cave.	Keller.	Cantina.
Sitting-room.	Salon.	Wohnzimmer.	Salone.
Washerwoman.	Blanchisseuse.	Wäscherin.	Lavandaja.
Meals.	Nourriture.	Beköstigung.	Cibo.
Breakfast.	Déjeuner.	Frühstück.	Colazione.
Dinner.	Diner.	Mittagessen.	Pranzo.
Supper.	Souper.	Abendbrod.	Cena.
Cup of coffee.	Tasse de café.	Tasse Caffe.	Tazza di caffè.
Glass of water.	Verre d'eau.	Glas Wasser.	Bicchiere d'acqua.
Waiter.	Garçon.	Kellner.	Cameriere.
Napkin	Serviette.	Serviette.	Tovaglinolo.
Apple.	Pomme.	Apfel.	Pomo.
Pear.	Poire.	Birne.	Pera.

USEFUL SENTENCES.	PHRASES UTILES.	NOTHWENDIGE CONVERSATION.	FRASE UTILI.
ENGLISH.	FRENCH.	GERMAN.	ITALIAN.
Peach.	Pèche.	Pfirsich.	Pesca.
Grapes.	Raisins.	Trauben.	Uva.
Beer.	Bière.	Bier.	Birra.
Vinegar.	Vinaigre.	Essig.	Aceto.
Salt.	Sel.	Salz.	Sale.
Bread.	Pain.	Brod.	Pane.
Butter.	Beurre.	Butter.	Burro, Buttiro.
Cheese.	Fromage.	Käse.	Formaggio.
Chicken.	Poulet.	Huhn.	Pollastro, Pollo.
Chop.	Cotelette.	Cotelette.	Costolina.
Egg.	Œuf.	Ei.	Uovo.
Fish.	Poisson.	Fisch.	Pesce.
Fork.	Fourchette.	Gabel.	Forchetta.
Knife.	Couteau.	Messer.	Coltello.
Spoon.	Cuillère.	Löffel.	Cucchiaio.
Meat.	Viande.	Fleisch.	Carne.
Beef.	Bœuf.	Rindfleisch.	Manzo.
Veal.	Veau.	Kalbfleisch.	Vitello.
Liver.	Foie.	Leber.	Fegato.
Mutton.	Mouton.	Hammelfleish.	Montone.
Sausage.	Saucisse.	Wurst.	Salsiccia.
Sugar.	Sucre.	Zucker.	Zucchero.
Ice.	Glace.	Eis.	Ghiaccio.
Reading-room.	Salon de lecture.	Lesezimmer.	Gabinetto di lettura.
Newspaper.	Journal.	Zeitung.	Giornale.
Railway guide.	Guide de chemin-de-fer.	Eisenbahn Anzeiger.	Guida delle strade ferrate.
A pen.	Una plume.	Eine Feder.	Una Penna.
Letter-paper.	Papier à lettre.	Schreib-papier.	Carta da lettere.
Sheet of paper.	Feuille de papier.	Bogen Papier.	Foglio di carta.
Envelope.	Enveloppe.	Couvert.	Sopracarta, coperta.
Newspaper wrapper.	Enveloppe de journal.	Kreuzband.	Invoglio di Giornale.
Letter to be left till called for.	Poste restante.	Postlagernd.	Posta Restante.
Post.	Poste.	Post.	Posta.
Sealing-wax.	Cire à cacheter.	Siegellack.	Cera lacca.
Blotting paper.	Papier brouillard.	Löschpapier.	Carta sugante.
Hotel bill.	Le compte, l'addition.	Die Rechnung.	Il conto.
I am thirsty.	J'ai soif.	Ich bin durstig.	Ho sete.
I am hungry.	J'ai faim.	Ich bin hungrig.	Ho fame.
In a city.	Dans une ville.	In einer Stadt.	In una città.
Please tell me the way to ———	Veuillez m'indiquer le chemin à ——	Bitte mir den Weg nach —— zu zeigen.	Mostratemi ve ne prego la via per——
Turn to the right.	Tournez à droite.	Wenden Sie sich rechts.	Tornate a destra.
Turn to the left.	Tournez à gauche.	Wenden Sie sich links.	Tornate a sinistra.
How long shall we stop here?	Combien de temps arretrons nous ici?	Wie lange Aufenthalt hier.	Quanto tempo ci fermeremo qui?
At what time does the train start for ———?	A quelle heure partira le train pour ——?	Um wie viel Uhr fährt der Zug ab nach ——?	A che ora parte il treno per ——?
Bank.	Banque.	Bank.	Banca.
Hotel.	Hôtel.	Gasthaus ; Hôtel.	Albergo.
Policeman.	Agent de police.	Polizist.	Uffiziale della polizia.
Police station.	Bureau de police.	Polizeiamt.	Ufficio di polizia.
Custom house.	Douane.	Zollamt.	Dogana.
Cabman.	Cocher.	Droschkenkutscher.	Cocchiere.
Cabstand.	Station de voitures.	Droschkenstation.	Stazione di carrozze.
Museum.	Musée.	Museum.	Museo.
Art gallery.	Galerie des beaux arts.	Kunstausstellung.	Galleria delle arti.
Money-changer.	Banquier.	Geldwechsler.	Cambia-Valute.
Palace.	Palais.	Schloss.	Palazzo.
Consulate.	Consulat.	Consulat.	Consolato.
Restaurant.	Restaurant.	Restauration.	Trattoria.

USEFUL SENTENCES.	PHRASES UTILES.	NOTHWENDIGE COVNERSATION.	FRASE UTILI.
ENGLISH.	FRENCH.	GERMAN.	ITALIAN.
Glover.	Gantier.	Handschuhmacher.	Guantajo.
Barber.	Coiffeur.	Barbier.	Barbiere.
Jeweler.	Bijoutier.	Juwelier.	Orefice.
Tailor.	Tailleur.	Schneider.	Sarto.
Bootmaker.	Cordonnier.	Schuhmacher.	Calzolaio.
Physician.	Médecin.	Arzt.	Medico.
Wine dealer.	Marchand de vin.	Weinhändler.	Mercante di vino.
Stationer.	Papetier.	Papierhändler.	Cartaio.
Tobacconist.	Marchand de tabac.	Tabakhandlung.	Tabaccaio.
Dressmaker.	Couturière.	Schneiderin.	Sarta.
Milliner.	Modiste.	Putzmacherin.	Modista.
Toilet.	Toilette.	Toilette.	Toeletta.
Boots.	Bottes, souliers.	Stiefel.	Stivali.
Stockings.	Bas.	Strümpfe.	Calze.
Drawers.	Caleçons.	Unterhosen.	Mutande.
Undershirt.	Camisole.	Unterjacke.	Camiciuola.
Nightshirt.	Chemise de nuit.	Nachthemd.	Camicia da notte
Dayshirt—Chemise.	Chemise.	Hemd.	Camicia.
Collar.	Col.	Kragen.	Colletto.
Cuffs.	Manchettes.	Manchetten.	Manichini.
Scarf.	Cravate.	Halstuch.	Cravatta.
Petticoat.	Jupe.	Unterrock.	Sottana.
Pantaloons.	Pantalons.	Hose.	Pantaloni.
Vest.	Gilet.	Weste.	Gilè.
Coat.	Redingote.	Rock.	Abito.
Dress.	Robe.	Kleid.	Roba.
Pins.	Epingles.	Stecknadeln.	Spille.
Needles.	Aiguilles.	Nadeln.	Aghi.
Buttons.	Boutons.	Knöpfe.	Bottoni.
Ribbon.	Ruban.	Band.	Nastro.
Brooch.	Broche.	Vorstecksnadel.	Spillone.
Earrings.	Boucles d'oreilles.	Ohr-ringe.	Orecchini.
Watch.	Montre.	Uhr.	Orologio.
Chain.	Chaîne.	Kette.	Catena.
Watch-key.	Cléf de montre.	Uhrschlüssel.	Chiave d'orologio.
Bootjack.	Tirebotte.	Stiefelzieher.	Tira stivali.
Sponge.	Eponge.	Schwamm.	Spugna.
Razor.	Rasoir.	Rasiermesser.	Rasoio.
Scissor.	Ciseaux.	Scheere.	Forbici.
Tooth-brush.	Brosse à dents.	Zahnbürste.	Spazzolino da denti.
Hair-brush.	Brosse à cheveaux.	Haarbürste.	Spazzola da capelli.
Comb.	Peigne.	Kamm.	Pettine.
Button-hook.	Crochet.	Stiefelknöpfer.	Tira-bottoni.
Handkerchief.	Mouchoir de poche.	Sacktuch.	Fazzoletto.
Scent.	Parfum.	Parfum.	Profumo.
Nail-brush.	Brosse à ongle.	Nagelbürste.	Spazzolino da unghie.
Clothes-brush.	Brosse à habit.	Kleiderbürste.	Scopetta d'abiti.
Did you understand?	Avez-vous compris?	Haben Sie verstanden?	Avete capito?
Is dinner ready?	Le diner est-il prêt?	Ist das Mittagessen bereit?	E pronto il pranzo?
Is it time to leave?	Est-il temps de partir?	Ist es Zeit zu gehen?	E ora di partire?
When shall we start?	Quand partirons-nous?	Wann gehen wir?	Quando partiremo?
Are there any letters for me?	Y-a-t-il des lettres pour moi?	Sind Briefe für mich da?	Ci sono lettere per me?
Come here.	Venez ici.	Kommen Sie her.	Venite qui.
Bid him come.	Dîtes lui de venir.	Schicken Sie ihn hierher.	Ditegli che venga.
Make haste.	Hâtez vous.	Beeilen Sie sich.	Spicciatevi.
Not so quick.	Pas si vite.	Nicht so schnell.	Non tanto presto.
Follow me.	Suivez moi.	Folgen Sie mir.	Seguitemi.
Wake me at ——	Reveillez moi à ——	Wecken Sie mich um —	Svegliatemi alle——
Yesterday.	Hier.	Gestern.	Ieri.

USEFUL SENTENCES.	PHRASES UTILES.	NOTHWENDIGE CONVERSATION.	FRASE UTILI.
ENGLISH.	FRENCH,	GERMAN.	ITALIAN.
To-morrow.	Demain.	Morgen.	Domani.
To-day.	Aujourd'hui.	Heute.	Oggi.
Is this the train for ——?	Est-ce le train pour —?	Ist dies der Zug nach —?	È questo il treno per—
Which is the boat for —?	Quel est le bateau pour ——?	Welches ist das Boot nach ——?	Qual è il battello per ——
Which is the best hotel at ——	Quel est le meilleur hôtel à ——?	Welches ist das beste Hotel in ——?	Qual è il miglior albergo in——
We wish to get out.	Nous désirons descendre.	Wir wollen aussteigen.	Vogliamo discendere.
I wish to see the proprietor.	Je désire parler au propriétaire.	Ich wünche den Eigenthümer zu sprechen.	Vorrei parlare al Proprietario.
Where is the water-closet?	Où sont les lieux d'aisance?	Wo ist der Abtritt?	Dov' è la ritirata?
Give me something to eat.	Donnez moi quelque chose à manger.	Geben Sie mir etwas zu essen.	Datemi qualche cosa a mangiare.
When do we dine?	A quelle heure dînons nous?	Wann essen wir?	A che ora si pranza?
Show me your bill of fare and wine list.	Montrez moi la carte.	Zeigen Sie mir den Speisezettel.	Mostratemi la lista.
What is the charge of admission?	Quel est le prix d'entrée.	Was ist der Eintrittspreis?	Quanto costa il biglietto d'ingresso?
Send for a cab.	Envoyez chercher un fiacre.	Lassen Sie eine Droschke holen.	Mandate cercare un fiacre.
Where are our rooms?	Où sont nos chambres?	Wo sind unsere Zimmer?	Dove sono le nostre camere?
Have you a room to let?	Avez-vous una chambre à louer?	Haben Sie ein Zimmer zu vermiethen?	Avete una camera da affitare?
One.	Un.	Eins.	Uno.
Two.	Deux.	Zwei.	Due.
Three.	Trois.	Drei.	Tre.
Four.	Quatre.	Vier.	Quattro.
Five.	Cinq.	Fünf.	Cinque.
Six.	Six.	Sechs.	Sei.
Seven.	Sept.	Sieben.	Sette.
Eight.	Huit.	Acht.	Otto.
Nine.	Neuf.	Neun.	Nove.
Ten.	Dix.	Zehn.	Dieci.
Eleven.	Onze.	Elf.	Undici.
Twelve.	Douze.	Zwölf.	Dodici.
Thirteen.	Treize.	Dreizehn.	Tredici.
Fourteen.	Quatorze.	Vierzehn.	Quattordici.
Fifteen.	Quinze.	Fünfzehn.	Quindici.
Sixteen.	Seize.	Sechzehn.	Sedici.
Seventeen.	Dix-sept.	Siebzehn.	Diecissette.
Eighteen.	Dix-huit.	Achtzehn.	Dieciotto.
Nineteen.	Dix-neuf.	Neunzehn.	Diecinove.
Twenty.	Vingt.	Zwanzig.	Venti.
Twenty-one.	Vingt-et-un.	Einundzwanzig.	Vent'uno.
Twenty-two.	Vingt-deux.	Zweiundzwanzig.	Venti due.
Twenty-three, etc.	Vingt-trois, etc.	Dreiundzwanzig, u. s. w.	Venti tre, etc.
Thirty.	Trente.	Dreissig.	Trenta.
Thirty-one.	Trente-et-un.	Einunddreissig.	Trent'uno.
Thirty-two, etc.	Trente-deux, etc.	Zweiunddreissig, u. s. w.	Trenta due, etc.
Forty.	Quarante.	Vierzig.	Quaranta.
Fifty.	Cinquante.	Fünfzig.	Cinquanta.
Sixty.	Soixante.	Sechzig.	Sessanta.
Seventy.	Soixante-dix.	Siebzig.	Settanta.
Eighty.	Quatre-vingt.	Achtzig.	Ottanta.
Ninety.	Quatre-vingt-dix.	Neunzig.	Novanta.
One hundred.	Cent.	Hundert.	Cento.
Two hundred, etc.	Deux cents, etc.	Zweihundert, u. s. w.	Duecento; dugento, etc.
One thousand.	Mille.	Tausend.	Mille.

USEFUL SENTENCES.	PHRASES UTILES.	NOTHWENDIGE CONVERSATION.	FRASE UTILI.
ENGLISH.	FRENCH.	GERMAN.	ITALIAN.
Eleven hundred.	Onze cents.	Elfhundert.	Mille cento.
Twelve hundred.	Douze cents.	Zwölfhundert.	Mille duecento.
Two thousand, etc.	Deux mille, etc.	Zwei tausend, u. s. w.	Due mila, etc.
One million.	Un million.	Eine million.	Un millione.
The first.	Le premier.	Der Erste.	Il primo.
The second.	Le second.	Der Zweite.	Il secondo.
The third.	Le troisième.	Der Dritte.	Il terzo.
The fourth.	Le quatrième.	Der Vierte.	Il quarto.
The fifth.	Le cinquième.	Der Fünfte.	Il quinto.
The sixth.	Le sixième.	Der Sechste.	Il sesto.
The seventh.	Le septième.	Der Siebente.	Il settimo.
The eighth.	Le huitième.	Der Achte.	L'ottavo.
The ninth.	Le neuvième.	Der Neunte.	Il nono.
The tenth.	Le dixième.	Der Zehnte.	Il decimo.
The eleventh.	Le onzième.	Der Elfte.	L'undecimo, decimo primo.
The last.	Le dernier.	Der Lezte.	L'ultimo.
The last but one.	L'avant dernier.	Der Vorletzte.	Il penultimo.
Once.	Une fois.	Einmal.	Una volta.
Twice.	Deux fois.	Zweimal.	Due volte.
The half.	La moitié, demi.	Die Hälfte, Halb.	La metà, mezzo.
The third.	Le tiers.	Das Drittel.	Il terzo.
The fourth.	Le quart.	Das Viertel.	Il quarto.
The fifth.	Le cinquième.	Das Fünftel.	Il quinto.
The sixth, etc.	Le sixième, etc.	Das Sechstel, u. s. w.	Il sesto, etc.
A quarter of an hour.	Un quart d'heure.	Eine Viertel Stunde.	Un quarto d'ora.
Sunday.	Dimanche.	Sonntag.	Domenica.
Monday.	Lundi.	Montag.	Lunedi.
Tuesday.	Mardi.	Dienstag.	Martedi.
Wednesday.	Mercredi.	Mittwoch.	Mercoledi.
Thursday.	Jeudi.	Donnerstag.	Giovedi.
Friday.	Vendredi.	Freitag.	Venerdi.
Saturday.	Samedi.	Samstag; Sonnabend.	Sabato.
A holiday.	Un jour de fête.	Ein Feiertag; ein Festtag.	Un giorno di festa.



Through the kindness of Messrs. E. A. Adams & Co., Boston, New England Agents of the **Red Star Line,** we have been permitted to reprint a portion of their "Cable Codex."

The seventh edition of this code, just issued, contains over 7,000 sentences, and can be obtained at 6 Bowling Green, New York, or 115 State St., Boston.

Arrival and Departure, Letters and Telegrams, Return, Prepayment of Passage, Illness, Business, Etc.

Aback,	All well. Business fair. Stay until ——
Abaculus,	All well. Business good. Stay until ——
Abash,	Am quite ill. Please come here at once.
Abatement,	Am somewhat ill. Cannot leave here at present.
Abbey,	And then go to ——
Abhorred,	Are very busy. Please return soon as possible.
Abhorrence,	Arrange for my return.
Abhorring,	Arrived all right.
Ablation,	Arrived. All well. Pleasant passage. Found everything all right.
Ablution,	Arrived. All well. Had splendid passage.
Abnegate,	Arrived. All well. Splendid passage. Address letters to ——
Abnormal,	Arrived. All well. Pleasant voyage. Telegraph me at ——
Abode,	Arrived. All well. Pleasant voyage. Proceed to ——
Aboding,	Arrived. All well. Pleasant voyage. Proceed to —— to-morrow.
Abolition,	Arrived. All well. Stormy passage.
Abominate,	Arrived. All well. Stormy passage. Was very sick.
Aboriginal,	Arrived. All well. Stormy passage. Proceed to —— to-night.
Abortive,	Arrived. All well. Had stormy passage. Telegraph me at ——
Abortively,	Arrived. All well. Stormy passage. Proceed at once to ——
Abounding,	Arrived here to-day ——
Abrading,	Await letter. It will explain.
Absenting,	Call at the General Post Office at —— for letter (dated ——)
Absorption,	Call for letter dated ——, which I have sent to ——
Abstemious,	Call for letter which I am writing, and which I will mail to care of ——
Abstractly,	Cannot leave here at present. Will advise you before I (or we) start.
Abstruse,	Cannot leave on date fixed. Hope to sail (or start) ——
Acceptance,	Cannot sail by steamer you name. Will come next steamer.
Accessible,	Cannot sail by steamer you name. Hope to leave ——
Accessory,	Cannot sail by steamer you name. Will cable when steamer and date of departure are fixed.
Accidental,	Cannot say when shall be able to leave ——
Acclimate,	Cannot you start before ——
Accordion,	Cannot you start so as to reach here ——

Accountant,	Come at once. Do not delay.
Accurate,	Care of Baring Bros. & Co., Liverpool.
Accursed,	Care of Baring Bros. & Co., London.
Accusing,	Care of Brown Bros. & Co., New York.
Accustom,	Care of Brown, Shipley & Co., Liverpool.
Acerbity,	Care of Brown, Shipley & Co., London.
Acetic,	Care of Comptoir d'Escompte de Paris, Paris.
Achieve,	Care of Drexel, Harjes & Co., Paris.
Achieving,	Care of Drexel, Morgan & Co., New York.
Achilles,	Care of Nicolas Martin, 9 Rue Scribe, Paris.
Aching,	Care of E. Hoskier & Co., Paris.
Achromatic,	Care of Hottinger & Co., Paris.
Aconite,	Care of J. S. Morgan & Co., London.
Acquiring,	Care of Perrier Frères & Co., Paris.
Acquire,	Care of American Line, 3 Cockspur Street, London.
Acquisite,	Care of American Line, Southampton.
Acquisitor,	Care of American Line Agent at ———
Acquist,	Care of American Line Agents at this place.
Acquit,	Care of Red Star Line, Antwerp.
Acquittal,	Care of Agents Red Star Line at ———
Acrimony,	Care of Agents Red Star Line at this place.
Acting,	Care of the correspondents of Baring Bros. & Co., at ———
Actiniform,	Care of the correspondents of Baring Bros. & Co., at this place.
Actinism,	Care of the correspondents of Brown, Shipley & Co., at ———
Actinolite,	Care of the correspondents of Brown, Shipley & Co., at this place.
Actively,	Care of the correspondents of J. S. Morgan & Co., at ———
Activeness,	Care of the correspondents of J. S. Morgan & Co., at this place.
Actually,	Departure postponed. Will wire on what date I leave.
Actuation,	Detained here by illness. Cannot say when shall be able to leave.
Acumen,	Everybody well. Stay as long as you wish.
Acutely,	Everything favors speedy recovery.
Adage,	Expect to arrive ———
Adamant,	Expect to sail per ———
Adamantine,	Expect to start ———
Adaptation,	Expect to start for ———
Adaptness,	Forward all letters to ———
Adequate,	Forward any letters for me to ———
Adherently,	Forward letters to care of ———
Adhesion,	Forward letters to care of my bankers at ———
Adhesive,	Forward letters to care of my bankers at London.
Adhesively,	Forward letters to care of my bankers at Paris.
Adipose,	Forward letters to my London address.
Adjacent,	Forward letters to my Paris address.
Adjacently,	Forward my letters to London, care of ———
Adjective,	Forward my letters to Paris, care of ———
Adjourn,	Forward my letters to the care of my bankers at ———
Adjunct,	Have had no letters from you for a fortnight or more. Are all well?
Adjunctive,	Have heard nothing from you since ———
Adjusting,	Have just arrived here. Please wire what you have to communicate.
Adornment,	Have started for ———

Adroitly,	Have started for home.
Adroitness,	Have started for home, and shall sail by the St Louis from Southampton on ———
Adry,	Have started for home, and shall sail by the St Paul from Southampton on ———
Adulation,	Have started for home, and shall sail by the St Louis from ——— on ———
Adulator,	Have started for home, and shall sail by the St Paul from Antwerp on ———
Adult,	Have started for home, and shall sail by the New York from Southampton on ———
Adulterate,	Have started for home, and shall sail by the Paris from Southampton on ———
Adulterer,	Have started for home, and shall sail by the Berlin from Southampton on ———
Adulteress,	Have started for home, and shall sail by the Chester from Southampton on ———
Adust,	Have started for home, and shall sail on the Friesland from Antwerp on ———
Adustion,	Have started for home, and shall sail by the Westernland from Antwerp on ———
Advance,	Have started for home, and shall sail by the Noordland from Antwerp on ———
Advantage,	Have started for home, and shall sail by the Kensington from Antwerp on ———
Advent,	Have started for home, and shall sail by the Southwark from Antwerp on ———
Adventure,	Have started for home, and shall sail by the ——— from Southampton on ———
Adverb,	Have started for home, and shall sail by the ——— from Antwerp on ———
Affection,	Have started for home, and shall sail from ——— per ———
Affianced,	Have started for home and shall sail per ———
Affidavit,	Have you engaged passage?
Affiliate,	Have you engaged passage? And if so, by what line?
Affinity,	Have you received my letter?
Afflicted,	Have you received my letter? Why do you not answer?
Affluent,	Hold my letters until further advice.
Aggrieve,	If possible, wish to remain another week.
Agility,	If possible, wish to remain until ———
Agreeing,	Is anyone ill? Telegraph reply quickly.
Agreeable,	Is decidedly better, and now out of danger.
Alacrity,	——— is ill, but not seriously.
Alarum,	——— is ill. Case quite serious.
Albino,	——— is ill. Return at once. Do not delay.
Alcoholize,	Is much better. No need for you to come.
Alcoran,	Return as soon as possible.
Alcove,	Shall sail from Southampton ———
Alder,	Shall sail from Antwerp ———
Alderman,	S. S. St Louis, sailing ———

Aldine,	S. S. St Paul, sailing ———
Aldoric.	S. S. New York, sailing ———
Alembic,	S. S. Paris, sailing ———
Altitude,	S. S. Berlin, sailing ———
Ambulance,	S. S. Chester, sailing ———
Ambuscade,	S. S Kensington, sailing ———
Amendment,	S. S Southwark, sailing ———
Anaconda,	S. S. Friesland, sailing ———
Anagram,	S. S. Westernland, sai ing ———
Analeptic,	S. S. Noordland, sailing ———
Analogical,	S. S. Waesland, sailing ———
Analogism,	S. S. Rhynland, sailing ———
Analogous,	S. S. Belgenland, sailing ———
Analogy,	S. S. Pennland, sailing ———
Analysis,	S. S. Switzerland, sailing ———
Angry,	Telegraph date of sailing.
Animus,	Telegraph reply.
Appendage,	When do you expect to sail for home? Telegraph reply.
Approving,	Will advise you when date of departure is fixed.
Aptitude,	Will arrange for your return.
Aptness,	Will sail by first steamer on which room can be secured.
Aquarium,	Will start as soon as psssible.
Arboretum,	Will return if you think best.
Archness,	Will write by first mail.
Arctic,	Will write soon.
Armament,	You are needed at home.
Armature,	You are not needed at home.
Armful,	You must be here by the ———
Arming,	You need not return until ———
Armor,	Your brother has been taken ill.
Armorial,	Your daughter has been taken ill.
Arnica,	Your father has been taken ill.
Aromatic,	Your husband has been taken ill.
Arraign,	Your mother has been taken ill.
Arraigning,	Your sister has been taken ill.
Arrantly,	Your son has been taken ill.
Arrayed,	Your wife has been taken ill.
Arterial,	Am out of funds. Can you send draft to me at ——— for ———
Atrocious,	Have sent draft as requested.
Attacking,	Have sent draft care of ———
Attain,	Have sent letter of credit as requested.
Attainment,	Have sent telegraphic money order as requested.
Avoidless,	Send credit by mail to me, care of ———
Avowal,	Send draft for ——— to me at ———
Azure,	Send telegraphic money order in my favor to me at ——— for sum of ———
Bald,	Will you honor my draft? And for what amount?
Balderash,	Will you honor my draft for ———?
Baldness,	You can draw at once.
Balkingly,	Your draft on ——— has been paid.

Ballastage,	Your draft has not arrived here.
Ballasting,	Your draft must have miscarried. How did you address letter?
Behest,	Have engaged berths for return passage.
Beholden,	Have engaged berths for return passage. What shall I do?
Beholding,	Have engaged passage.
Belabor,	Have engaged passage by American Line.
Belated,	Have engaged passage by Red Star Line.
Buster,	Please send a copy of this codex to ——
Bustling,	Please send a copy of this codex to —— and ask him (her or them) to use it in telegraphing to me.
Busybody,	You can obtain a copy of this codex by applying to ——
Chorister,	Can you give me address of ——?
Chorus,	Can you give me address of? Have important news to communicate.

Code Words for Months and Days.

Note.—The day of any month is expressed by combining as one word the code word in the day column with the code word for the month. Thus "Baronberg" means 5th January, or "Colemont" 13th August.

Date.	Beginning for the day.	Ending for the Month.	Month.
First	*Arms*		
Second	*Aron*		
Third	*Ash*	*Berg*	January.
Fourth	*Attle*		
Fifth	*Baron*	*Boro*	February.
Sixth	*Beach*		
Seventh	*Bloom*	*Dorf*	March.
Eighth	*Brown*		
Ninth	*Barro*	*Dale*	April.
Tenth	*Clare*		
Eleventh	*Clay*		
Twelfth	*Coke*	*Field*	May.
Thirteenth	*Cole*		
Fourteenth	*Dress*	*Ford*	June.
Fifteenth	*Devon*		
Sixteenth	*Dun*	*Ham*	July.
Seventeenth	*Eden*		
Eighteenth	*Elgin*	*Mont*	August.
Nineteenth	*Eton*		
Twentieth	*Fair*		
Twenty-first	*Glen*	*Shire*	September.
Twenty-second	*Green*		
Twenty-third	*Hazel*	*Ton*	October.
Twenty-fourth	*Lees*		
Twenty-fifth	*Lynn*	*Ville*	November.
Twenty-sixth	*Olden*		
Twenty-seventh	*Oster*		
Twenty-eighth	*Pitts*	*Wood*	December.
Twenty-ninth	*Plain*		
Thirtieth	*Raven*		
Thirty-first	*Rock*		

Obtruded,

Obtruding,

Obtrusion,

Obtrusive,

Obviated,

Obviating,

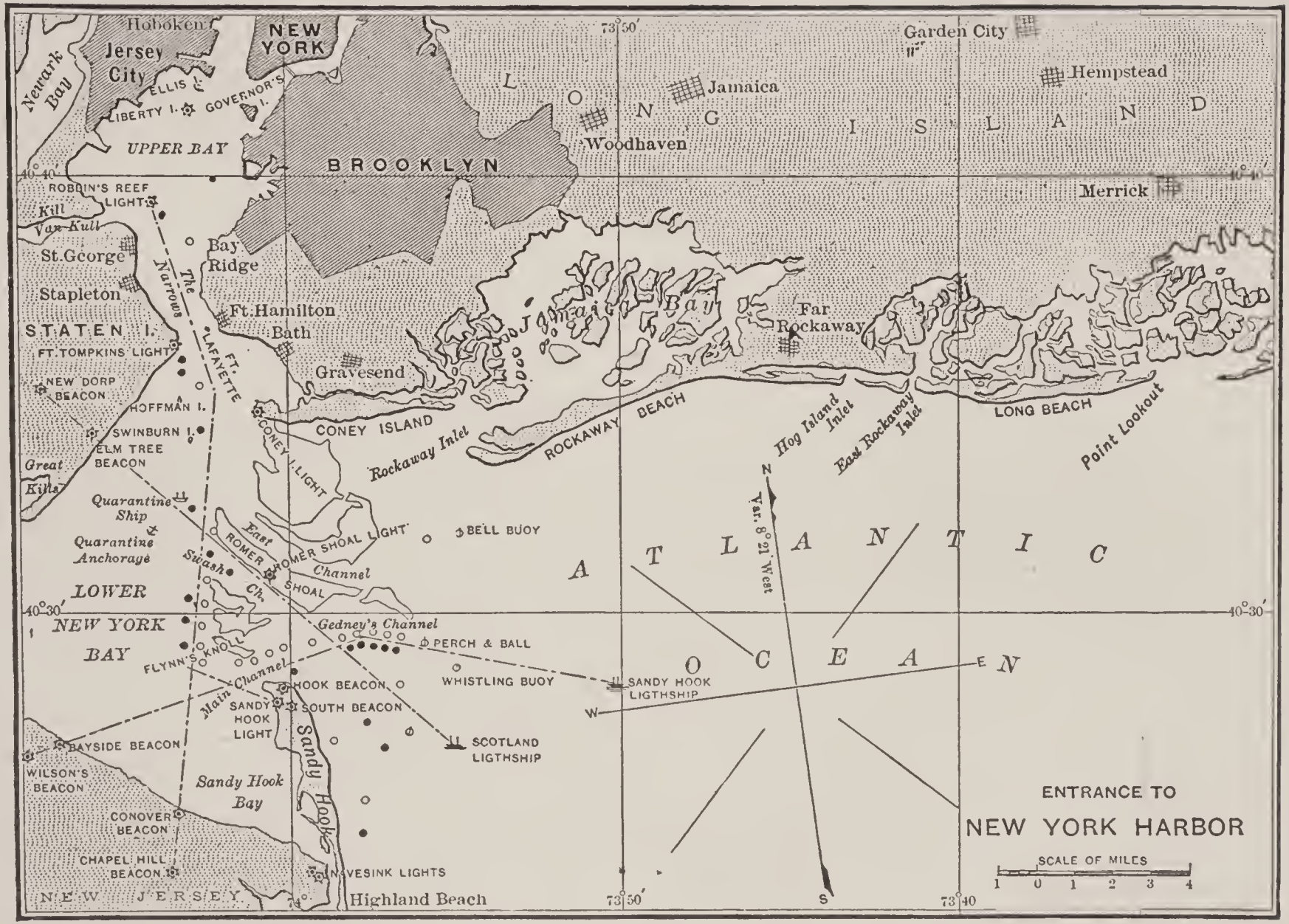
Obvious,

Obviously,

Occasional,

Occasioner,

Occiduous,


Hoboken
Jersey City
NEW YORK
Garden City
Hempstead
Jamaica
Woodhaven
LONG ISLAND
Newark Bay
ELLIS I.
LIBERTY I.
GOVERNOR'S I.
UPPER BAY
BROOKLYN
40°40'
73°50'
ROBBIN'S REEF LIGHT
Kill Van Kull
St.George
Stapleton
STATEN I.
FT. TOMPKINS LIGHT
NEW DORP BEACON
HOFFMAN I.
SWINBURN I.
ELM TREE BEACON
Great Kills
Quarantine Ship
Quarantine Anchorage
LOWER NEW YORK BAY
The Narrows
FT. LAFAYETTE
Bay Ridge
Ft.Hamilton
Bath
Gravesend
CONEY ISLAND
CONEY I. LIGHT
Rockaway Inlet
ROCKAWAY BEACH
Jamaica Bay
Far Rockaway
Hog Island Inlet
East Rockaway Inlet
LONG BEACH
Point Lookout
Merrick
40°40'
ROMER SHOAL LIGHT
BELL BUOY
East ROMER SHOAL Channel
Swash Ch.
Gedney's Channel
PERCH & BALL
FLYNN'S KNOLL
Main Channel
HOOK BEACON
WHISTLING BUOY
SANDY HOOK LIGTHSHIP
SANDY HOOK LIGHT
SOUTH BEACON
SCOTLAND LIGTHSHIP
BAYSIDE BEACON
WILSON'S BEACON
Sandy Hook Bay
Sandy Hook
CONOVER BEACON
CHAPEL HILL BEACON
NAVESINK LIGHTS
NEW JERSEY
Highland Beach
74°
73°50'
73°40
40°30'
ATLANTIC OCEAN
Var. 8°21' West
N
E
S
W
ENTRANCE TO
NEW YORK HARBOR
SCALE OF MILES
1 0 1 2 3 4

OFFICIAL TRACK CHART.

MAP OF EUROPE

BRITISH AMERICA
UNITED STATES
LABRADOR
GULF OF ST. LAWRENCE
NEW FOUNDLAND
NEW BRUNSWICK
Quebec
Montreal
St. John's
Portland
MAINE
NOVA SCOTIA
Sable Island
Sable Bank
Bank of St. Pierre
Virgin Rocks
GREAT BANK OF NEWFOUNDLAND
MASSACHUSETTS
Boston
Cod
Nantucket I.
NEW YORK
PHILADELPHIA
Sandy Hook
Washington
Baltimore
VIRGINIA
Cape May
Cape Henlopen
Delaware
Charles
Chesapeake Bay
Norfolk
N. CAROLINA
Wilmington
BERMUDAS
AZORES
MADEIRA ISLES
AFRICA
IRELAND
Sligo
Galway
Dublin
Londonderry
Belfast
ENGLAND
LIVERPOOL
London
SOUTHAMPTON
Flushing
ANTWERP
Landsend
Lizard
Pierre
Brest
Paris
FRANCE
Bordeaux
PORTUGAL
Oporto
SPAIN
Lisbon
Gibraltar

N O R T H S E A

ATLANTIC OCEAN

BAY OF BISCAY

IRELAND
R. Shannon
Limerick
Tralee
Killarney
Bantry
Cork
Queenstown
C. Clear
Waterford
Cardigan Bay
St. George's Chan.
Milford
Swansea
WALES
Holyhead
ANGLESEY
SNOWDON
Liverpool
Chester
Manchester
Leeds
Hull
Crewe
Nottingham
Trent
The Wash
Ely
Birmingham
Warwick
Kenilworth
Severn
Cambridge
Yarmouth
Harwich
ENGLAND
Bristol Channel
Bristol
Windsor
Thames
Sheerness
LONDON
Penzance
Lands End
Exeter
Plymouth
Falmouth
SCILLY IS.
Brighton
Dover
Folkstone
SOUTHAMPTON
I. OF WIGHT
Portsmouth
Newhaven
Strait of Dover
ENGLISH CHANNEL
Flushing
Ostende
Calais
Boulogne
Lille
Mons
Maubeug
Hirson
C. de la Hague
CHANNEL ISLANDS
GUERNSEY
JERSEY
Cherbourg
HAVRE
Dieppe
Amiens
Rouen
La Fere
R. Oise
R. Seine
OUESSANT IS.
Brest
Granville
St. Denis
PARIS
Argentan
Versailles
Quimper
Rennes
Vannes
Le Mans
Chartres
Fontainebleau
BELLE ISLE
Nantes
Angers
Orleans
Tours
R. Loire
Les Sables
Vierzon
Poitiers
Argenton
La Rochelle
FRANCE
St. Sulpice
Montlucon
Moulins
Maco
R. Gironde
Limogee
Angouleme
Clermont
Perigieux
St. Etienne
Bordeaux
Contras
R. Garonne
Figeac
Agen
Morceux
Mende
Millan
Dax
Bayonne
Vic
Toulouse
R. Tarn
Ceunes
Nimes
S. Sebastian
Tarbes
Miranda
Burgos
Alsasua
Lourdes
Pyrenees Mountains
Bagneres
Tarascon
Narbonne
Cette
Agde
Marseilles
Gulf of Lions
Perpignan
Andorra
Port-Vendres
Rosas
Palamos
Mataro
S. Feliu
Barcelona
Villanova
Tarragona
Tortosa
C. Tortosa
Puerto Alfaquez
Benicarlo
Castellon
Murviedro
Valencia
Cullera
Carcagente
Denia
C. Nao
IVICA
Ivica
FORMENTARA
MAJORCA
Palma
Alcudia
MINORCA
Mahon
Mascor
BALEARIC ISLANDS
C. Ortegal
La Coruna
C. Finisterre
Santiago
Rivadeo
Oviedo
Gijon
Rivadesella
Santander
Lugo
Carril
Vigo
R. Minho
Orense
Vianna
Pavoa
Braga
Villa Nova
Oporto
Ovar
R. Douro
Cantabrian Mts.
Portugalete
Bilbao
La Pola
Leon
Palencia
Zamora
Valladolid
R. Ebro
R. Duero
Salamanca
Medina
Alagon
Saragossa
Castejon
Huesca
Lerida
Barbastro
Escatron
Escurial
MADRID
Aranjuez
Toledo
Arzobispo
Cuenca
Alcazar
Tortosa
Puerto Alfaquez
Benicarlo
Castellon
Valencia
Murviedro
Cullera
Carcagente
Denia
Alicante
LA SAGRA
Coimbra
SA. DE ESTRALLA
S. DE GATA
Santarem
R. Tagus
Vargens
LISBON
Caceres
Casa Branca
Badajoz
R. Guadiana
Milfontes
Beja
Sierra Marena
Tharsis
Rio Tinto Mines
Linares
Cabeza
Ciudad Real
Chincilla
Candete
Lagos
Ayamonte
Huelva
Guadalquivir
Sevilla
Cordova
Juen
Farc
Les Sables
La Rochelle
Poitiers
Argenton
Moulins
Maco
Limogee
Angouleme
Clermont
Perigieux
St. Etienne
Contras
Figeac
Agen
Morceux
Mende
Millan
Dax
Bayonne
Vic
Toulouse
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Burgos
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Alicante
C. Nao
IVICA
Ivica
FORMENTARA
MAJORCA
Palma
Alcudia
MINORCA
Mahon
Mascor
BALEARIC ISLANDS
Longitude from Greenwich

DENMARK
Tondern
Laaland
Schleswig
Kehmern
RUGEN I.
HELIGOLAND
Kiel
Stratsund
Colberg
Stolp
Danzig
Konigsburg
Insterburg
Cuxhaven
Bremerhafen
Emden
Lubeck
Rostock
Coslin
Elbing
Loetzen
Hamburg
Schwerin
Neustettin
Konitz
Graudenz
Harlingen
TEXEL I.
Stavoren
Oldenburg
Bremen
Luneburg
Stettin
Bromberg
Vistula R.
Thorn
Mlava
Wittenberge
Alexandrovo
Osnabruck
Hanover
Stendal
BERLIN
R. Warthe
Praga
Rheine
Brunswick
Potsdam
Frankfurt
Posen
WARSAW
Siedlec
Munster
Magdeburg
Wittenberg
Jarotschin
POLAND
Ivangoro
Wesel
Dessau
Cottbus
Kempen
Pietrkov
Radom
Lublin
Ghent
Cologne
Eisenach
Leipzig
Dresden
Gorlitz
Breslau
Czenstochova
Kielce
Namur
Coblenz
Giessen
Erfurt
Altenburg
Reichenberg
Glatz
Oppeln
Cracow
Vistula R.
Givet
Treves
Frankfurt
Chemnitz
Carlsbad
Prague
Eger
Ratibor
Tarnow
Bingen
Wurtzburg
Pardubitz
Troppau
Wieliczka
Luxemburg
Bayreuth
Pilsen
Teschen
Nen Sandec
Reime
Thionville
Darmstadt
Nurnberg
TATRA
Verdun
Metz
Nancy
Heidelberg
Carlsruhe
Pisek
Brüan
Bndweis
Trentsch
S. Marton
Stuttgart
Ratisbon
Danube
Nikolsburg
Theisholz
Kascban
Strasburg
Ulm
Landshut
Augsburg
Linz
VIENNA
Tyrnau
Schemnitz
Epinal
Munich
Baden
W. Neustadt
Presburg
Komorn
Miskolcz
Belfort
Rosenheim
Salzburg
Bruck
Odenburg
BUDA-PESTH
Theiss R.
Basle
Besancon
Zurich
Lindau
Feldkirch
Innsbruck
Lienz
Gratz
Balaton L.
Gr. Wardein
Szarvas
Csaba
Szegedin
Arad
Maros R.
Danube R.
Berne
Interlacken
Chur
Meran
Villach
Marburg
Kanizsa
Tolna
Marla Theresiopel
Temesvar
Bourg
Lausanne
ST. GOTHARD
Brieg
Lugano
Trient
Botzen
Cilli
Batitzek
Mohacz
Werschetz
Geneva
CHAMOUNY
Martigny
Zermatt
Como
Lecco
Udine
Gorz
Laibach
Agram
Drave R.
Essek
Nensatz
Chambery
Novara
Milan
Mantua
Venice
Trieste
Pirano
Daruvar
Karlstadt
Karlowitz
Semlin
Bazias
Grenoble
Turin
Verona
Gulf of Venice
Brod
Valence
Briancon
Alessandri
Piacenza
Parma
Goro
Pola
Save R.
Ihace
Maglai
Loznitza
BELGRADE
Mt. Cenis
Genoa
Bologna
Lossina
Travnik
Valievo
Iagodina
Gulf of Genoa
Ravenna
Rimini
Zara
Knin
BOSNIA
SERVIA
Nice
Carrara
Lucca
S. Marino
Livno
Seralevo
Monaco
Remo
Florence
Ancona
Sebenico
Spaluto
Uschitze
Toulon
Cannes
Legburn
Arezzo
Mostar
HERZEGOVINA
Siena
Terontal
Foligno
Macerata
Novibazar
Piombino
Ascoli
Trebinje
Niksies
C. Corso
Grossetto
Curzola
MONTENEGRO
Pristina
Bastia
Orte
Aquila
Pescara
Gravosa
Celtigne
Calvi
Civitavecchia
Albano
Vasto
Cattaro
Scutari
CORSICA
Ajaccio
ROME
Campobasso
Antivari
Proprina
Porto Vecchio
Velletri
MT. GARGANO
Alessio
Bonifacio
Porto d'Anzio
Foggia
Tiranna
Strait of Bonifacio
Terracina
Barletta
Durazzo
St. Teresa
Benevento
Bari
Okhrida
Terranova
Naples
Monopoli
Elbassan
Porto Torres
Siniscola
Sorrento
Brindisi
Kavaia
Algheri
Ozieri
Gulf of Naples
Taranto
Kastoria
SARDINIA
TYRRHENIAN SEA
Metaponta
Gulf of Taranto
Oristano
Tortola
Pisciotta
Policastro
Otranto
Iglesias
Muravera
Cagliari
Belvedere
Rossano
C. S. Maria di Leuca
Paola
Cosenza
Parga